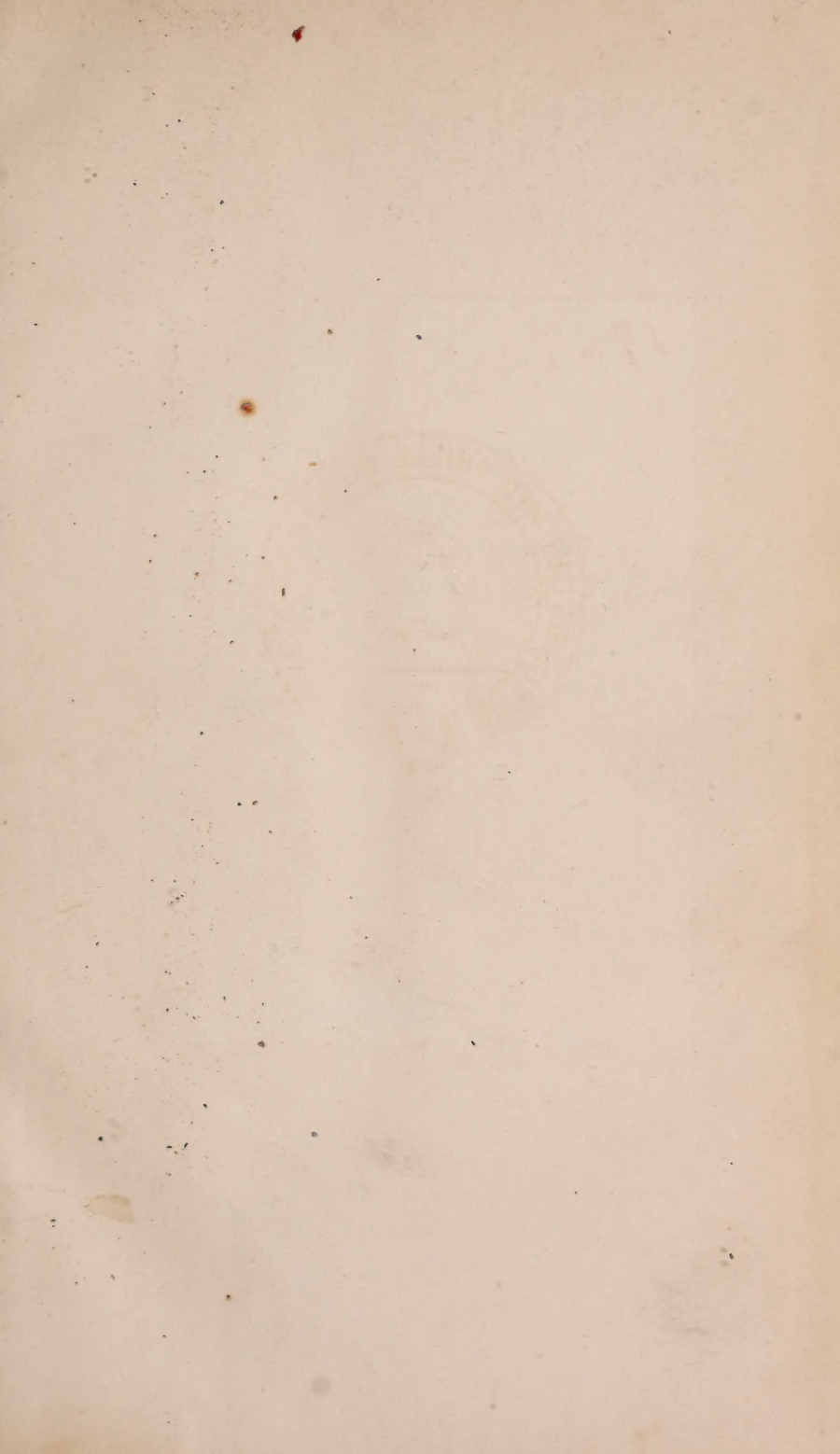




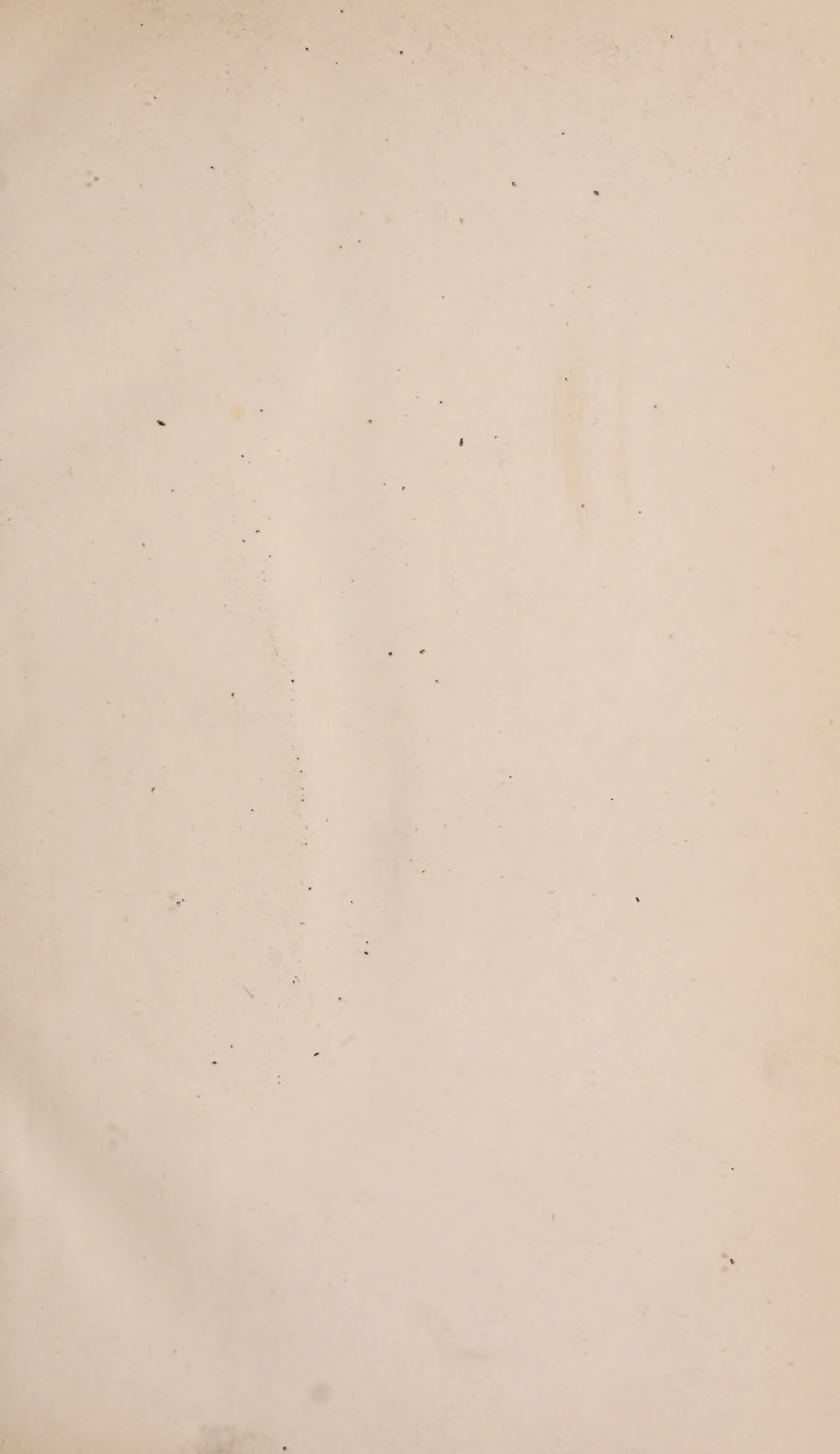
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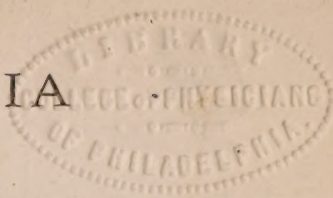






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(RICHMOND.)

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EDITOR AND PROPRIETOR.

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VIRGINIA MEDICAL MONTHLY.

VOL I.

RICHMOND, APRIL, 1874.

No. 1.

Original Communications.

ART. I.—*Sponge Tent in Menorrhagia.* By JOHN HERBERT CLAIBORNE, A. M., M. D., Petersburg, Va.

I beg to call the attention of the profession, through the pages of your journal, to the use of the *Sponge Tent in Menorrhagia*. I have elsewhere* given the history of a case of menorrhagia of nine years' duration, in which the patient, a married lady of thirty-two years of age, had become an invalid and a wreck, never able to leave her chamber and rarely on her feet for a week at a time; but who, by the use of the sponge, simply for the purpose of exploration, had been restored as if by magic to health and usefulness.

Within the last twelve months I have met with another case of exaggerated menorrhagia, of one year's duration, in which the patient was rarely able to leave her bed even for a few days, and in which the flow, fearfully great at the monthly molimen, never entirely subsided from period to period, and which has been perfectly and, to this time, permanently relieved by only one introduction of the sponge tent, and without any subsequent local treatment. It occurred in the person of a young married woman about thirty years old, ordinarily in fair health for an American woman, the mother of two children (the youngest about six years of age), and who had no miscarriages or accidents to recount. She had become feeble, enervated, hopeless, and I might almost say bloodless, though her appetite and diges-

* Clinical Reports from Private Practice, Case 102, published by Jos. V. H. Nash, Petersburg, Va., 1873.

tion were good. She had no pain except in her monthly periods, when her suffering was excessive—always demanding the free use of opiates to secure any relief. She had received the usual routine treatment of astringents and ecbolics—gallic acid, elixir vitriol, ergot, oxide of silver, &c. Intelligent and patient local treatment had been adopted. There had been applied to the os uteri Monsel's solution, glycerole of tannin, chromic acid, Churchill's solution of iodine, and iodide of potassium; which class of remedies seemed, on examination, to have been indicated. The neck of the womb was considerably elongated, and was enlarged to twice, perhaps thrice, its natural size; was preternaturally red, though not at all indurated—on the contrary, soft and velvety to the touch. It bled freely on the slightest interference; yet there were present none of those brittle, granulating ulcers so common in carcinoma, and only a few circumscribed abrasions on the lips of the os—none larger than a split pea. The womb itself was somewhat larger than natural, though in situ and not especially sensitive.

I suggested the introduction of the sponge for the purpose of exploring the inner surface of the womb, and used a full sized tent. In twenty-four hours I had the fullest opportunity of examining the cavity of the uterus, but finding no polypus, or tumor, or other pathological condition to account for the menorrhagia, and remembering the excellent effect of the sponge tent in the case cited, I proposed no further treatment for a few days; but requested the lady to remain in bed, and to continue her tonic regimen. At the expiration of a week there had been no return of the hæmorrhage; and, on examination, the os and cervix had resumed their normal size and appearance, and exhibited not one sign of the pathological condition which had characterized them at the last examination. Her regular period came on a few days subsequently, without pain and without more than the usual flow for a woman in health. She left her bed and room at the expiration of a week, and has ever since (twelve months) been attending to her ordinary domestic duties without inconvenience and without relapse.

I did not understand the action of the sponge tent in the first case (referred to in *Clinical Reports*, &c.) until after one or two

25+81

searching examinations I discovered the presence in the muscular structure of the womb, just within and involving the inferior os, a sesamoid tumor about the size of a small prostate gland. This tumor, after the introduction of the sponge tent, and its remaining in the cervix for about twenty-four hours, would become so absorbed, so thinned under pressure, that it neither acted as a foreign body in the womb nor prevented the normal closing of the cervical canal; hence the menorrhagia was always relieved for about twelve months, when by gradual growth the tumor would attain something of its former size, again interfere with healthy menstruation, and be as certainly and readily removed by the sponge tent, and its evil influences counteracted.

In the latter case recited, the action of the sponge tent was similar in its character. It caused absorption by its pressure on the preternaturally enlarged and congested cervix, and restored it to a more healthful condition. The hemorrhage in this case was evidently mostly from the os and cervix uteri—induced, I have some reason to believe, by immoderate indulgence in marital pleasures, a not infrequent cause of menorrhagia.

In the history of the two cases just cited, I trust I have made plain my meaning in speaking of the “use of the sponge tent in menorrhagia.” I mean to recommend it as a *curative remedy* or *procedure* in cases of a certain character. I used it, I am free to confess, as a mode of exploration in both cases—seeking and expecting to find in the cavity of the womb some cause of the exaggerated flow. I was disappointed in not finding some cause, and again, and agreeably disappointed in the curative results which ensued from the mechanical treatment.

I do not know that the sponge tent has anywhere been recommended or used for this specific purpose before, but I am sure that it places in the hands of the profession a valuable resource. I would not recommend such treatment of course in every case of menorrhagia—certainly not in every case of metrorrhagia, with which the former seems so often confounded.

I wish, by the use of the term *menorrhagia*, to convey the idea of *excessive menstruation*, as exhibited (a) in the profuseness of the menstrual flow, or (b) in the protracted duration of the flow, or (c) in the too frequent repetition of the flow. Some

women regard every unusual discharge (as to quantity) of blood from the unimpregnated womb as excessive menstruation, or menorrhagia, and thus often mislead the practitioner. They should be taught to know that menorrhagia is excessive menstruation—excessive discharge of blood from the unimpregnated womb at those regular periods which are coincident with, if not caused by, the maturation and escape of an ovule from the ovary. Hemorrhages may occur from the non-gravid womb, not more connected with and not more dependent upon the monthly molimen than hemorrhage from the stomach, or the bowels, or the lungs, as in the case of a polypoid tumor, or of cancer, or of delayed involution of the womb after the discharge of a mole, or after an abortion; and it must be remembered that all of these causes may co-exist with menorrhagia, and may complicate it, but they do not make the disease: they may make a *metrorrhagia*.

Menorrhagia is often the result of causes affecting the *general system*, as general debility, change of climate from a cold to a warmer latitude, climacteric changes attending the period for the cessation of menstruation, hemorrhagic diathesis, &c. In all of these of course we make no account in recommending the sponge tent. It is only in those cases of menorrhagia, the results of causes affecting the *sexual system*, in which we propose to use it. Amongst these causes may be enumerated (1), *Flexions of the uterus*—according to Dr. Grailly Hewitt, “one of the most common direct or indirect causes of menorrhagia,” especially anti-flexion, that being the most common form; (2) *Fibroid tumors* growing within the thickness of the cervix uteri, as in the first case to which I referred; (3) *Inflammatory engorgement* of the os and cervix uteri, whether the result (a) of excessive coition, as is often seen in prostitutes and sometimes in the newly married; or (b) the result of imperfect involution after miscarriages; or (c) the result of attacks of metritis from any cause.

The action of the sponge tent in such cases is easily explained: Obstructions are removed, and the products of inflammation are absorbed with a rapidity and an effectiveness which

must be witnessed to be believed; and if the cause of the menorrhagia be simply *local*, the cure is as speedily and as certain.

It should be observed that the use of the sponge tent is sometimes not unattended with danger. Dr. Thomas (*Diseases of Women*) instances two cases—one of tetanus and one of pelvic cellulitis—both terminating fatally, and in both of which he attributed the unfortunate results to the use of the tent for purposes of exploration. Some recent writer in a medical monthly, upon which I cannot now lay my hand, rates the mortality from the use of the sponge tent with the *mortality accompanying the operation of ovariectomy*. I must think this an exaggeration. As far as my personal experience is concerned, I have never known any untoward result of any sort from its use. I have often left the tent in situ for twenty-four hours without any disagreeable consequences; but, as a rule, I think from eight to ten hours sufficient to secure its full benefit, and that it is safer to remove it always at the end of that time. Occasionally an intolerable fetor is developed if it remain as long as twenty-four hours, but this can always be prevented by dipping the tent after its preparation in a molten cerate of carbolic acid. Indeed, I think this is a wise precaution under any circumstances.

The tent should always be sufficiently long to enter the inner os, small—especially on its first introduction—and well secured in its place by packing the pelvic cavity closely with cotton. A Sims' speculum, a tenaculum to hold the womb firmly while the tent is being introduced, and a pair of long forceps, are the instruments necessary for the effectual performance of the operation. Some physicians say that they need nothing but "their fingers and a pledget of cotton;" but it is a deft hand that can accomplish it with so simple armamenta.

Coating Sponge Tents.—Dr. M. Penhoel writes to *The Medical Times* that coating sponge-tents with oleum theobromæ very much facilitates their introduction.—*New Remedies*.

ART. II.—*Drainage in Obstinate Chronic Inflammation of the Bladder.* By HUNTER MCGUIRE, M.D., Professor Surgery Medical College of Virginia, Richmond.

As far as I have been able to learn, Mr. Guthrie, of London, was the first to propose opening the bladder, when all other means of cure had failed, in cases of chronic cystitis. Sir Jas. Y. Simpson, Drs. Emmett, Bozeman, and Parvin have succeeded in relieving cases of inflammation and ulceration of the bladder, which had resisted all other known remedies, by opening the vesico-vaginal septum. In this way the urine was permitted to drain off as fast as it was poured into the bladder, and that organ was kept in a state of complete repose until the inflammation had disappeared. Simpson operated by introducing through the urethra into the bladder a grooved staff, and taking this as a guide, he cut through the posterior fourth of the urethra, and then extended the incision through the vesico-vaginal walls for an inch. His success in two cases was rapid and complete. The operations performed by the other surgeons mentioned resulted also in entirely relieving the patients.

Mrs. Blank, æt. 41 years, came to me about the 1st of July, 1873, laboring under chronic inflammation and probably ulceration of the bladder. The disease came on about eight years ago, she thinks, in consequence of exposure to cold. It was not very severe at first, and she resorted for several months to some simple remedies without relief. Since that time she has passed through the hands of a dozen physicians and surgeons, and notwithstanding the most careful and skillful treatment, the disease has slowly and gradually increased in severity. When she came to me, her suffering was fearful. Micturition was frequent and attended by intense burning and scalding pain. Under the influence of the most powerful anodynes, she was unable to sleep for more than half an hour before she was aroused by the vesical and rectal spasms. The urine was usually dark and offensive, containing some muco-pus, and occasionally shreds of lymph, albumen and blood. Her general health was wretched. She was thin, feeble, anæmic, and her countenance indicative of the greatest distress. Finding that she had faithfully tried,

and without relief, nearly every remedy, local and general, known to the profession for her disease, I explained to the poor lady the operation performed by Simpson and others, and gave her that hope to look forward to, if all other means failed. I advised her, however, to take an infusion of hops, uva ursi, and cubebs, gave her some directions about bathing, diet, &c., and asked her to let me see her again in two weeks.

She came back at the end of that time without the slightest improvement, and earnestly begged to have the operation performed.

I had on my office table, when she came in, a piece of gum-tubing I had prepared to use after the operation for vesico-vaginal fistula, which I expected to perform that day on a patient at the Hospital. I intended to use this tubing, instead of Sims' sigmoid catheter, to keep the bladder drained of urine after the operation. This tubing, made of the finest gum, was about twelve inches long, and four inches of it, or that portion which was to be placed in the bladder, had been perforated by a shoe-maker's punch, with holes about half an inch apart. I determined to substitute this drainage tube for the operation of opening the bladder through the vagina. I had in my pocket case of instruments a silver catheter, which the maker, in order to economize space, had made into three pieces. These pieces screwed together made a perfect catheter. Attaching only the handle and shaft pieces together, gave me a straight silver tube, into which I passed the gum tubing. The silver tube was then introduced very carefully through the urethra into the bladder, and the gum tube pushed through this until four or five inches had been coiled up in the bladder. The silver tube was then withdrawn, leaving the gum tubing in the bladder. Two pieces of tape were then fastened to the gum tube by a solution of gum-elastic and chloroform, and these tapes tied to a band which had been passed around the woman's hips. The drainage tube being thus secured in the bladder, the free end of the tube was put into a common bottle to catch the urine.

Before leaving the patient I introduced a vaginal suppository of morphia and belladonna.

The lady informed me the next morning that she had passed a more comfortable night than she had done for years. The

drainage kept up without interruption until about daylight, when the holes became filled with mucus, the flow ceased and the tube was expelled by the bladder. I reintroduced it, and directed the nurse to examine the tube every half hour, and if it became clogged, to inject half an ounce of tepid water through it, and in this way keep it open. The morphia and belladonna suppository to be used every twelve hours, and oftener if vesical tenesmus came on.

For six weeks this tube was kept in the bladder constantly, and the patient remained in bed. Frequently it was expelled by the bladder and required to be replaced, and very often new tubing was substituted for the old. I found the shorter the portion of tubing in the bladder the longer it would be retained, and at last introduced only enough to secure the drainage; but the bladder evidently became more and more tolerant of the presence of the foreign body after the first week had passed. When from any cause the tube was reintroduced, the plan already described was followed. Occasionally I succeeded in passing it as I would a soft gum catheter, without the aid of any instrument. Once or twice I used, to aid its passage through the urethra, a common grooved director. Afterwards, I had made a large silver female catheter nearly straight, with a very large single opening at its vesical end, and taught the nurse to introduce it through this. I substituted also for the tapes strips of gum-elastic fastened to the tube, and attached them to the band around the abdomen. Occasionally phosphatic deposits were found on the tube, but this was corrected by the free use of citric acid in the shape of lemonade. During this period she slept well, was free from pain, her appetite increased, and her general health rapidly improved.

At the end of six weeks I attached the free end of the tube to a gum bag, which was fastened to the patient's thigh just above the knee. She was then permitted to get up and go about the house, and, after a few days, to walk about. She wore the tube for four months, going about and attending to many of her household duties, and enjoying a freedom from pain, and a degree of comfort which she had not felt for years. At the end of this time I had some difficulty in persuading her to let me remove the tubing, so much afraid was she of a return

of her former suffering. There was for some time after its removal complete incontinence of urine; but after a few days, especially after lying down, the bladder began gradually to retain some urine, and to expel it voluntarily in small quantities. The organ gradually recovered its former healthy power, and at this time, eight months since the drainage was begun, she can retain the urine about three hours, and void it without pain. Except the slight increased frequency of micturition, and this is growing less, the lady is well.

ART. III.—*Oxygen Gas as a Remedy in Disease.* By JAMES L. CABELL, A. M., M.D., LL.D., President Virginia State Board of Health, Professor Physiology and Surgery, University of Va.

[The subjoined letter from Dr. Cabell, addressed to Dr. F. B. Watkins, of this city, in answer to special inquiries made by him, was read at the meeting of the Richmond Academy of Medicine, held March 5th, 1874, and has with the consent of the author, been furnished us for publication.—ED.]

Dear Sir:—In reply to your communication of the 18th inst., I have to state that my personal experience in the use of *Oxygen Gas as a Remedy in Disease* is limited to three cases. It would, perhaps, be admissible to say, to only two cases, since in one of the three, the patient, in whom convulsions and abortion supervened upon a very bad attack of pneumonia, was in *articulo mortis* when the attempt to administer the agent was first made. This was some years ago. I have, however, paid some attention to the recent literature of the subject, and as the results of my partial experience correspond very closely with the deductions drawn from the more extended observations of others, they are not, I think, devoid of interest.

Omitting the case which I have just referred to as one in which the experiment was entirely nugatory, my first case was that of Mrs. * * * * to which you allude. In this case both lungs had been largely wasted by a tubercular phthisis of

several years' duration. During the previous three or four months the process of ulceration and suppuration had been extremely rapid, until the amount of breathing surface left was barely adequate to support life, and that only with extreme discomfort. A few inspirations of pure oxygen not only relieved the dyspnoea but reduced the frequency, while it increased the tone of the pulse, and revived the sinking spirits of the patient to an extent which can scarcely be exaggerated. At first these effects, following the inhalation of two or three gallons of the oxygen, would last for an hour or two, or even longer. After a few days it became necessary from the rapid progress of the disease to use the gas almost constantly, and when the inhalations were suspended by the necessity of sending the bag for a fresh supply, she would be exceedingly impatient and send a second messenger after the first. Nothing more was expected in this case than to effect an *euthanasia* by excluding asphyxia as a cause of death, and by maintaining the normal balance of the functions until the gradually failing power of the heart should finally give way under a painless asthenia. In this there was complete success. The patient continued to inhale the gas until within fifteen minutes of dissolution, holding the mouth piece herself, and declaring that she experienced great comfort; the cause of death finally being *asthenia*, the pulse at the wrist having ceased sometime before the respiration.

The other case which has come under my notice is of more recent date. About ten days ago the Principal of a boy's boarding school in another county came to me to get advice in regard to the treatment of a case of double pneumonia. He stated that one of his boys had died of this disease a few days before, and now another was in an extremely critical state. I could not visit the patient, who was under the immediate care of his father, an intelligent and experienced physician, but I urged the gentleman who consulted me to telegraph at once to the manufacturer of oxygen gas for remedial purposes (W. E. Gladstone, 1291 Broadway, New York), for a cylinder capable of holding 200 gallons of oxygen compressed into a moderate bulk, and to use it according to directions. He was afraid that the boy would not live until the gas could be procured. In twenty-

four hours, or thirty at most from the time of despatching the telegram the cylinder was received. I learn that in a few minutes the effect was magical in lessening the number of respirations, dissipating the sense of suffocation, diminishing other causes of discomfort and substituting a feeling of positive ease. Owing to a somewhat wasteful use of the gas the supply was exhausted before an additional order was filled. During this interval the dyspnœa recurred with alarming urgency, but was again promptly relieved on a resumption of the inhalations, and after a few days the disabled lung tissue recovered its functional power and convalescence set in.

Such a result is in accordance with facts cited by Dr. Andrew H. Smith, of New York, in an excellent prize essay on "Oxygen Gas as a Remedy in Disease," which you will find in the *New York Medical Journal* for April 1870. He refers to a case of this disease reported by Dr. Golden in the *Lancet* for March 10th, 1866, where there was great dyspnœa and which resolved in four days under the use of oxygen, and adds that he himself had seen a case of circumscribed pleuro-pneumonia, occurring in the course of chronic pyæmia, which was apparently aborted within thirty-six hours by the use of the gas. In general the use of the gas is held to be contra-indicated in the presence of acute inflammation, yet even if this rule be accepted as a well established law, there can be no question that Dr. Smith is right in affirming that, "When respiration is seriously interfered with, the danger from this source outweighs all risk from any possible increase of the inflammation which the use of oxygen may occasion." I add that a careful analysis of Dr. Smith's experiments to determine the physiological action of oxygen, and of the results of its employment in the treatment of a great variety of inflammatory affections, has satisfied me that there is no risk at all. Dr. Smith's essay, of which a second edition with a few additional reports of cases has been published in pamphlet form, gives an excellent resumé of the literature of this subject, and after describing the modes of preparation and administration, considers the physiological action and the therapeutical uses of the gas.

To meet the wants of persons who cannot supply themselves with the compressed gas, Dr. Smith has devised an apparatus

for generating oxygen at the bed-side which costs about \$25. In this apparatus the gas is generated by the decomposition of chlorate of potassa, and generally carries over some chlorine which is removed by a quantity of liquor potassæ purposely left in the wash-bottle and some sublimed chlorate of potassa, which escapes decomposition. No harm can result from inhaling the latter, according to the experience of Dr. Smith, who has repeatedly demonstrated the fact in his own person. But my colleague, Prof. Mallet, informs me that there is yet another irritating agent whose presence in oxygen freshly prepared from chlorate of potassa precludes the safe use of the gas. This substance, which Dr. Mallet supposes to be some form of ozone, is, however, removed by allowing the gas to stand for half an hour or longer over water. In view of the existence of these irritating impurities in gas prepared from chlorate of potassa it will be better for persons favorably situated to procure the compressed gas from the large manufacturing establishments, where it is prepared from atmospheric air by the intervention of the manganate of soda.

The therapeutical applications of oxygen are arranged by Dr. Smith under three heads, as follows:

I. In diseases involving defective respiration, as Asthma, Pulmonary Emphysema, Croup, Diphtheria, Pneumonia, Capillary Bronchitis, Dyspnoea from Cardiac Disease, Poisoning with Opium, Charcoal gas, Chloroform and Chloral, Cholera Asphyxia, &c. He cites cases under each head, and with respect to croup expresses a "firm conviction that oxygen will do in most cases all that could be done by tracheotomy."

II. In diseases involving defective nutrition, as Phthisis, in which disease, as in others in which nutrition is defective, the use of the gas "*as a rule favors assimilation and results in a gain of weight.*" He cites a number of cases which in my judgment suffice to encourage us in the systematic use of oxygen in the earlier stages of phthisis. Dr. Smith himself is too cautious to dogmatize, but says that "while not prepared to endorse the opinion of Birch, that with the use of oxygen the cure of consumption in its earlier stages should be the rule rather than the exception, he has no hesitation in saying that he has more confidence in it than in any or all other remedies." The other diseases included

in this class are, Dyspepsia, Diabetes, Albuminuria, Rheumatism and Gout, Uræmia, Neuralgia, Paralysis, Epilepsy, Fatty Placenta, Irregularities of Menstruation.

III. Applications of Oxygen in Surgery—to promote the healing of open wounds and ulcers, to prevent and palliate shock of severe surgical operations, and to sustain life in cases of Chronic Pyæmia, until the septic poison shall have been eliminated.

This exhibits quite a wide and extensive range of therapeutical application. I add that the author has been very careful in verifying his facts, and that he does not “ride a hobby.” I have myself been under his treatment for a chronic affection of the larynx, and now take pleasure in bearing grateful testimony to his professional knowledge and practical skill.

It seems to me that your criticism founded on a passage quoted from Dr. Bayles’ paper on Scarlatina in the *New York Medical Journal*, for September, 1873, scarcely does justice either to Dr. B., or to the remedy (oxygen) which he recommends. In Scarlet fever, Dr. Bayles says: “It (oxygen) will tranquillize in one stage and energize in another. In a surprisingly short time, I have, with the free use of oxygen seen the pulse brought down from high levels to nearly the normal standard. In the same subject *at another time* (the italics are mine and not Dr. B.’s), the pulse *small, thready feeble and slow*, would quickly be sent up to its normal range and volume.” You object to this that it makes oxygen “blow hot and cold, at its own caprice, so that the practical physician must ever be at a loss to know what its behaviour will be, and consequently must resort to its use empirically.” If this be so, then precisely the same charge may be brought against alcohol and most other stimulants. Precisely the same apparently paradoxical effects follow the use of alcohol administered in different conditions of the system. It reduces the frequency of the pulse in fevers and increases it in opposite states of the system, in both cases tending to restore the normal balance of the functions. This quality of rectifying “*by its direct action some deficient or too redundant natural action or tendency*” is of the very essence of a stimulant, as properly contra-distinguished from a narcotic, though the same agent may

in *different doses* exhibit either quality. *Vide* Anstie on "Narcotics and Stimulants" *passim*, and especially his remarks on Oxygen which he considers to be a perfect type of "*a stimulant of the first rank*," without the complication of narcotic properties in any dose, p. 153, and on the stimulant action of Alcohol, pp. 432-461.

Very truly yours,

J. L. CABELL.

University of Virginia, Feb. 23rd, 1874.

P. S.—Assuming that you will refer to Dr. Smith's Essay for detailed directions, I have said nothing about the mode of administering oxygen by inhalation. To provide, however, for the contingency of a failure on your part to get possession of that paper, I may add a few words as to the method of administration.

When indicated as a tonic to improve assimilation in chronic diseases one or two gallons daily, given morning and evening will usually suffice. In cases of urgent dyspnoea the permissible amount is practically unlimited. It should be repeated as often as is necessary to relieve the patient. Mrs. * * * inhaled more than 100 gallons in a few hours, and suffered great distress when the inhalations were suspended. The gas is contained in a rubber bag and is conveyed to the patient's mouth by a flexible tube with a mouth piece of hard rubber, ivory, glass or wood. The patient inhales from the bag and *during expiration, some person sitting by* compresses the flexible tube so as to prevent the expired air from passing into the bag. The rythm is easily caught, except when the respiratory movements are exceedingly rapid.

ART. IV.—(1) *Acute Lead-Poisoning—Recovery.* (2) *Traumatic Tetanus, in which large Doses of the Calabar Bean were used. Remarks.* By CHRISTOPHER TOMPKINS, M.D., Richmond, Va. (Reported to the Richmond Academy of Medicine, February 19th and March 5th, 1874.)

CASE I.—On the 6th of February last, I was called to see

S. E., æt. 25, a light mulatto woman, strong and muscular in appearance. She was suffering from constipation and a copious leucorrhœa, for which was ordered two compound cathartic pills, to be taken at bed-time, and half an ounce of the acetate of lead divided into four powders (each to be dissolved in a pint of water), to make a vaginal wash that was to be used two, three, or four times daily, as required. She was also requested to inform me of her condition from time to time, which she failed to do. I did not see her again until the 17th inst., when I was summoned in great haste. Reaching the house, I discovered that she had delayed taking the medicine till the day before, and had then, at 2.30, 4, and 7 P. M., taken a powder of the acetate of lead by mouth, and dissolved as directed. She slept well that night, and no unusual sensations were experienced till the next morning, when, at 7 o'clock, she took the remaining powder. The pills were not used.

Disagreeable symptoms now set in—pain in the epigastrium, gradually extending over the entire abdomen; nausea and some vomiting; eventually all muscular power seemed to leave her, and she tumbled from the chair in which she was sitting to the floor. Shortly after this I was with her, and noticed that there seemed to be not so much a loss of muscular power as proper co-ordination; and although if shaken and spoken to loudly, she would answer questions intelligently, immediately afterwards she lapsed back into stupor. There was no blue line about the gums and no wrist-drop—the pulse sympathized with the prostrate condition of the body. After producing a copious vomit with ipecac and mustard and warm water, an ounce of the sulphate of magnesia was administered and retained. She was also ordered 30 drops of laudanum every two hours till relieved of pain, which result was attained after taking three or four doses. She did well during that day and the ensuing night. The next morning, the salts not having acted, an additional half ounce was given, which operated well. A light diet was allowed on the return of appetite, and laudanum, if necessary, to control pain. The case continued to improve till the 24th inst.—seven days after taking the poison—when the patient was discharged cured.

Remarks.—A specimen of the lead from which the prescrip-

tion used in this case was filled was obtained, and an analysis proved it to be chemically pure.

I find, in referring to authorities on this subject, very few instances where poisonous doses of this drug had been taken. In practice, gastric disturbance and colicky pains are generally looked for after taking twenty grains in broken doses. The case here reported is a strong one to show that acute lead-poisoning is not easily produced by the acetate of lead; for three drachms were certainly absorbed in this instance, and possibly more. Taylor, in his work on the *Principles and Practice of Medical Jurisprudence* (1873), records instances where as much as an ounce of the drug was swallowed—the patient recovering with appropriate treatment—and says, “nothing is actually known concerning the *fatal dose* of sugar of lead.”

CASE II.—A. J., colored, æt. 27, a man of medium stature and well-knit frame, came to my office February 22d last, for medical advice. States that he has been a healthy man up to his present illness with the exception of a recent attack of syphilis that never progressed beyond the first stage, and from which he had entirely recovered. On the 13th instant he ran a nail in the under portion of the end of the big toe of the right foot, from which (after the use of household remedies) he suffered no inconvenience for seven days. Then, pain was felt at the seat of injury, and general *malaise*. This pain gradually increased, and extended up the leg over the entire muscular structure of the body. Becoming uneasy about his condition, he came to me.

On examination, the wound in the toe seemed natural, and presented nothing worthy of special notice. There was slight (not well developed) muscular spasm and pain. The mouth could be well opened, and the voice was clear and distinct. Pulse good; appetite poor; bowels costive. Ordered muriated tincture of iron, 15 drops, and quinia, 5 grains, three times daily, and an ounce of castor oil; also a drachm of acetate of lead dissolved in a pint of water as a wash, to be applied to the wound in the toe. Late in the afternoon of the same day I called at his house. He was much worse. The symptoms of tetanus were now well developed, especially risus sardonius and opisthotonos. Spasms came on regularly, and the jaws were be-

ginning to be clinched. The medicines prescribed in the morning had been taken, and he was now ordered in addition 5 drops of the tincture of calabar bean every four hours, and laudanum, 30 drops, every two hours, if necessary, to produce sleep.

February 23rd.—Tincture of calabar bean, 10 drops; evening 15. Instead of the laudanum, chloral hydrat., 20 grains (dissolved in water), every hour, if necessary, to produce twelve hours' sleep in the twenty-four. There is no improvement in the patient's condition. His muscles, with the exception of those of the legs and forearms, are rigid and hard, like boards. Anticipating a long and severe illness, eggs, soup, and beef-tea were administered from time to time.

February 24th.—Tincture calabar bean, 20 drops; evening, 22. Tincture of the muriate of iron, 20 drops, to be given every four hours. The bowels were moved by an enema, oil failing to act.

February 25th.—Tincture calabar bean, 24 drops; evening, 26. Patient lies on his belly; his whole body arched and rigid. The jaws are now so thoroughly clinched, that they cannot be opened at all. The nourishment and medicines are squirted into his mouth with a small syringe through the crevices of the teeth.

February 26th.—Tincture calabar bean, 28 drops; evening 30; besides which, the whole spinal column was ordered to be rubbed with liniment of cantharides twice daily. Fifteen drops of laudanum were added to each dose of the chloral given. Lying on his back, he has to be supported with pillows under the spine, so great is the curvature.

February 27th.—There was some softening of the muscles to-day, attributable to the debility and weakened condition of the patient. The dose of the tincture calabar bean was not increased. Egg-nog was allowed from time to time.

February 28th.—Patient's medicines had not been given to him properly during the past night, and to-day he is much worse. Pulse notably diminishing in force and power, but increasing in frequency. Tincture calabar bean, 40 drops; evening, 45. Three doses of the last mentioned quantity were taken, when he died, complaining of severe and continued pain over the cardiac region.

During the treatment of this case, I was assisted by Drs. G. W. Harris and W. Augustus Lee, who kindly met me from time to time in consultation. The pupils of the eyes were diligently and carefully examined on all occasions, but were never observed to be contracted or otherwise than normal.

Remarks.—In commenting on this case, I desire to refer to the fact that there is no prescribed (officinal) strength for tinctures made from the calabar bean. Each drachm of the preparation used on this occasion was stated by one of the best druggists in this city (who, I believe, can furnish as good a preparation of this medicine as can be found) to represent thirty-six grains of the kernel of the bean. The forty-five drop doses, therefore, were equivalent to thirteen and a half grains. A specimen of the article used (so reduced in quantity as to represent one grain to the drop) placed on the conjunctiva of a healthy, active puppy, caused the characteristic contraction of the pupil. The test, however, was not, to my mind, entirely satisfactory; for after the lapse of twenty-four hours it had entirely disappeared, and the pupil was normal.

The largest dose of the kernel generally recommended in the books is nine grains. In this instance it was intended that the medicine should have a fair trial. The large and oft-repeated doses taken, without, so far as could be seen, any effect whatever, either upon the disease or the patient, gives the case interest, and tends, in a small way, to fix (what I fear is too true) that we have not yet discovered a reliable remedy for tetanus. The following remarkable note can be found attached to an article on tetanus in Hartshorne's *Essentials of Practical Medicine*, 1871: "Dr. W. W. Keen (Phila. Med. Times, March 1st, 1871) gave the tincture of calabar bean (*physostigma venenosum*) in doses of one or two hundred minims in a case in which recovery occurred. * * * *Practitioner*, Sept., 1869." If Dr. Keen had ascertained, by examination, the quality and strength of the tincture used, the case would have been an important one. As it is, it is of little value.

Glycerole of Iodine is used for loss of voice.

Analyses, Selections, &c.

The *Chicago Medical Journal*, (Jan. 1874,) contains a lengthy article by Dr. John Bartlett, (Chicago), **On a Marsh Plant from the Mississippi Ague Bottoms, supposed to be kindred to the Gemiasma of Salisbury, with a Consideration of its Genetic Relations to Malarial Diseases**, which is of so much interest and importance—should the observations be confirmed—that we need make no apology for the space devoted to a synopsis of it.

After referring at some length to the well known paper of Dr. J. H. Salisbury (*American Journal Medical Sciences*, 1866), and the unfavorable review made of it in the same Journal, (1868), by Dr. H. C. Wood, which did so much to check further research in the direction pointed out by Dr. Salisbury, Dr. Bartlett states that, in September 1871, in company with Dr. J. P. Safford, he was induced to examine the slough margins in the lower river bottom opposite Keokuk, Iowa, (where the ague was epidemic), in search of the plant imperfectly described in Dr. Salisbury's paper, and a sod containing numerous plants was obtained by Dr. Safford. On comparing the specimens of plant with Salisbury's account, "we could only conclude," writes Dr. B., "that the plant found was a variety of the gemiasma, differing from them in several particulars; chiefly, perhaps, in respect to size. * * * These were as large as rape seed."

In August, 1873, Dr. B. visited Riverside—a town on the Des Plaines river, twelve miles from Chicago—where for several years past ague had prevailed. To his disappointment, he failed to find the plant on the margins of the river. "Subsequently, in an interview with Dr. Fox, who has long practiced in the neighborhood, it was learned that the ague did not prevail there this year, but on the contrary, there was a marked exemption from it."

"On 15th September (1872), Dr. Safford renewed his visit to East Keokuk, and also requested Dr. Jenkins to examine the soil about the canal in his locality (above Keokuk). On the extensive slough margins in East Keokuk, where no plant could be discovered two weeks before, they now existed

in quantities exceeding the crop in 1871. *The ague was exceedingly prevalent.* Dr. Jenkins also reported that * * * the plants were even more abundant than at East Keokuk, and that in the neighborhood where, two weeks before, he had only two cases of ague, now 'there was not a soul who was not affected with some form of malarial fever.'"

Other not less striking instances are mentioned, in which there seemed to exist a relation between the occurrence of ague as a direct effect of the presence of this plant, which Dr. B. calls *Safford's Plant*,* and of which the following description is given.

It consists of a body and apparently a root. The body is a hollow globe varying from 1-14th of an inch in diameter to a size so small as not to be detected without a lens. The internal layer of the globe-wall appears to be an expansion of the root material, is structureless, and has a dull white color. The outer green wall rests upon the first as a basement membrane; and is composed of a great number of circular cells, which enclose green contents. This green material is divided by lines running, without definite arrangement, across the cell. At maturity—due to escape of its contents—the globe collapses; the upper circumference falls in upon the lower, leaving a cup instead of a sphere. The collapsed plant generally presents the cell wall unbroken. The walls, examined immediately after having fallen in, appear of a darker color, as if moistened. The cavity of the plant contains a colorless fluid which, it is presumed, is spontaneously evacuated when the globe collapses. It is forcibly ejected if the plant be punctured." Nothing is known of its composition.

What appears to be the root is, in length, about six times the diameter of the plant; is hollow, white and translucent, and the surface appears as if covered with granules. Dr. Safford regards

* According to Profs. Babcock and Munroe, Botanists, Chicago, it is the *Hygogastrum*, of Rabenhorst, or the *Botrydium*, of the Micrographic Dictionary. They think it highly probable that the green vine, the crystalloid bodies and crystalline thread, with the knobbed acicular crystals and germinal atoms belong to a distinct growth, probably to a fungus, parasite upon the *Hygogastrum*.

the cavity of the root and body as continuous; he thinks he has seen the green cells of the wall within the hollow of the root; but Dr. B. has never observed this. He has, however, seen the green cells of the globe floating upon and about the root, and massing in its branches; but these cells were washed from the body of the plant, the spots on the globe from which they were removed being readily detected by the bald appearance of the denuded white membrane.

A collapsed globe does not cease to grow. The wall-cells enlarge and elongate, and become distinct from their fellows. The green coating of the mother plant is almost invariably covered with a crystalline substance, which is also abundantly scattered over the soil, and everything in the vicinity of the plant. Salisbury called the substance an aggregation of spores, and declared that he had seen with a high power the individual spores composing the mass.

Upon placing the plant under the microscope, Dr. B. discovered that, after collapse, it underwent the following additional phases of development. While the distinctive growth of the wall-cells progresses, the cup of the plant becomes deepened, which, when a number of collapsed globes are crowded together, gives the mass a brilliant green honey-combed appearance. The margins of the cells of this honey-comb become coated with white, crystalline matter, of a dull bluish tint. From this project innumerable short, acicular, vitreoid stems, each of which is surmounted with a brilliant globule, as of hollow glass. Meanwhile, two striking growths may be noticed near the plant, and crossing over it: One a tortuous green vine, with adhesive surface, so that small worms coming in contact with it are unable to release themselves and quickly perish; the other, a crystalline thread, resembling a crystal of muriate of ammonia. The green vine is the larger, but much less frequently seen. The crystalline thread is abundant, crossing and recrossing the plant, projecting into the air and over neighboring crevices. This growth which appears to resemble the thread of ordinary mycelium, but which differs from it in various important particulars, is essentially the same as the green vine. The filaments are generally white, sometimes pink, rarely blue, and at times of an iron mould or even dead black color. The larger specimens are

as thick as fine sewing thread, fibrous in structure, and are jointed. The joints bear green-colored buds, of fibrous texture (seen by transmitted light), and have a crystalloid appearance by reflected light.

The crystalline thread when recent is motile: extremities of it projecting into the air, or overhanging a cliff, sway to and fro in the breeze. A piece one-fourth of an inch long, placed in glycerine between glasses, writhed like a snake, and a ribbon of it, which formed in six hours in a specimen of semen from an ague patient, exhibited undulatory movements, and occasionally rotated on its axis.

By a power 200 or 300 diameters, numerous short pieces of very small white or black crystalline filaments may be seen lying upon or about the old collapsed plants. The crystalloid bodies, when viewed upon the plant present the appearance of a fine crystalline white powder, resembling quinine, or small crystals as of common salt. On the ground they are larger, some as large as rape seed. Some have rounded outlines, others have a broken appearance. Some appear to have a fibrous, others a hyaline structure. Varying shades of color are sometimes noticed on one piece. When viewed by polarized light, these bodies appear to be marked in a direction perpendicular to that of the fibrous structure (when this is apparent) by a series of dark finely scalloped lines. The developed wall cells of the collapsed globe disappearing in the process of their complete development, nothing remains of the mother plant, but a saucer-like pit in a slate colored ground. The crystalline bodies and filaments have a longer life.

The wall cells of a vigorously growing collapsed plant bearing acicular crystals, when examined under a low power, appear to be elongated and pestle-shaped. The contents are cells, not distinguishable except by their smaller size from the wall cells of the uncollapsed globe.

Allowed to remain undisturbed a few hours on the slide, the parent wall cells were found collapsed, and the contained cells were not to be seen. But the slide was moistened and crowded with bodies which (under power of 700 diameters) seemed to be non-nucleated cells. In attempting to estimate their size, Dr. B. observed new and smaller non-nucleated, slightly oval cells

which strongly refract light, constantly coming into view. He concluded, therefore, that a protoplasmic fluid was under examination, out of which originated the minute cells just described, which Dr. B. calls "germinal atoms." The cells emitted by the wall cells are termed "spores." The "germinal atoms" exhibited on the slide, a formative instinct. A double row of them stretched across the glass, one and another row appeared within these, and finally a crystalline thread had formed—tape-like and twisted on itself. Another row of cells soon ranged on either side of this filament, and formed two heavy brownish lines, between which and the thread minute particles developed. Lastly, the green envelope of the crystalline thread was formed by the coalescence of these points with the brown line. Meanwhile, other particles were aggregated into white crystalline masses, or into bodies resembling granular casts from the kidneys. This and the self-multiplication of the cells was the limit of activity of the formative atoms.

Still another phase of the plant's development was studied. Amid the disappearing collapsed globes, dark green cells with cellular walls were observable proceeding from the crystalloid substances and the crystalline threads. After frequent examinations, it seemed probable that the crystalloid bodies were the seed of the ague fungus, fertilized, perhaps, by pollen in the globules of the acicular crystals.

The crystalloid substances and mycelium-like thread are regarded as phases in the development of Safford's plant.

Dr. B. had specimens of the plant growing in a very imperfect way (for it seems impossible to imitate their native habitat) outside of his window for six weeks, and was often examining and experimenting with them. After the second week, germinal particles were constantly found in his blood. After the fourth week, he had decided symptoms of intermittent fever, occasionally requiring quinine to diminish or remove threatened attacks.

According to Dr. B.'s limited observations, the muddy moss-grown margins of river-sloughs, &c., have been the places where the plants have been found, and then only during the prevalence of malarial disease. In fact, he was led to the places indicated because of the ague in the neighborhood.

Dr. B. next considers, *seriatim*, the objections presented by Dr. Wood against Dr. Salisbury's theory. Dr. B. does not think that Dr. Salisbury intended to refer to palmellæ as the cause of ague, against which theory the results of experiments by Drs. Leidy and Wood are urged. Safford's plant is not a palmella. Dr. B. thinks Dr. Wood is probably in error in stating that vegetable *decomposition* is an acknowledged necessity for the generation of malaria, and mentions Wm. Ferguson, John Bell, Flint and Aitken as authors who oppose such a view. He then reviews the instances mentioned in many text-books as exceptions to the rule that malarial diseases originate in localities where there exist heat, moisture and appropriate soil, and shows that there is nothing in them contravening the theory of vegetable origin.

Attention is next called, by tabular statements, to the localities, conditions and circumstances in which malarial diseases arise, in order to show a correspondence between them and those which pertain to the presence of the plant.

The theory of the nature of malarial diseases is discussed. Dr. B. thinks the germinal atoms, less than one-fifth the diameter of the blood corpuscle, readily enter the blood with the air inspired, or with the food or drink. Once in the blood, these atoms are supposed to act as a ferment, and the malarial diseases thereby produced become literally *zymoses*. This view of the subject seems confirmed by the demonstrations of Pasteur, that the essential causative element in fermentation in all cases is the minute self-multiplying cell of a plant.

Quoting the language of Dr. Bartlett: "In the event of the plants described being the cause of ague, what will be the value of the discovery as a matter of hygiene? Localities where they prevail may be avoided, as in pitching a camp or founding a settlement. When the surface occupied by them is small, they might be destroyed, according to Salisbury's suggestion, by covering them with lime, ashes or straw. If their territory of occupation is extensive, it might be necessary to change the condition of the soil by drainage, in order to secure their destruction. It is possible that some vegetation may be discovered to be hostile to their growth.* * * * Finally, by experimenta-

* The cultivation of the Eucalyptus Globulus—wherever it is practicable to attempt it—might be tried in these localities.

tion, some medicine, harmless to the system, may be found, which, taken continuously, would destroy them in the system, or at least arrest their increase, in some such manner as quinine may be supposed to do. Where exposure is inevitable, the experiments of Pasteur would suggest the use of the cotton-wool respirator.

“In the event of these theories being correct, we have in the microscopical examination of the secretions of the patient an excellent means of diagnosis; and having at hand the exciting cause, experiments made directly upon it would, without doubt, lead to greater advances in the therapeutics of malarial diseases.”

Though unable to reconcile certain differences, Dr. Bartlett is yet disposed to believe that Prof. Salisbury’s “spore” and the “germinal atom” may be the same body.

Hypodermic Injection of Quinine.—Dr. F. D. Lente recommends (*New York Med. Jour.*, March, 1874) this plan of treatment in cases of malarial fever which resist ordinary measures. He thinks its infrequent adoption and the want of confidence usually placed in it arise principally from the many accidents which have followed the injection of the solutions generally employed—circumscribed inflammations, abscesses, sloughing, ulceration, &c., being the most frequent bad effects. Even tetanus has been ascribed to hypodermic injections in certain localities—mostly tropical—where, however, tetanus often occurs as a common incident from trivial wounds. It is the *wound and abscess* which cause the disease—not the quinine injection.

A properly prepared solution of quinine being the desideratum, it has been Dr. Lente’s study to discover how to obtain it. Even with the addition of 14 minims of dilute sulphuric acid to the drachm of water, 10 grains of the sulphate of quinia could not be held in permanent solution unless kept at a temperature of 70° or 75° F. Moreover, a cryptogamic deposit occurs in this solution after standing a short time.

To obviate this, and to test Lister’s antiseptic plan on the cellular tissue, the following formula was adopted and has been used ever since:

R Quin. disulph.....	gr. l.
Acid. sulphuric. dilut.....	M. c.
Aquæ font.....	3 j.
Acid. carbolic., liq.....	M v.

Solve. Place the quinine and water in a porcelain dish, over a spirit lamp, heat to the boiling point, and add the dilute sulphuric acid, stirring with a wooden spatula. Filter at once into a bottle, and add the carbolic acid. This gives full six grains of quinine to the drachm. Even this solution will deposit some crystals at a temperature of 50° F. By heating the fluid at the moment of use, double the amount of quinine may be dissolved in the same quantity of fluid.

Dr. L. thinks the carbolic acid alleviates the pain of the injection, and the local troubles are less frequent and severe. Numbness of the part, however, is often—sometimes lasting weeks after the operation—and the injected part is usually tender for a few days; but this rarely incapacitates a laborer for half a day. Dr. L. thinks as many troublesome effects follow the hypodermic use of morphine as this solution of quinine.

In cases of local trouble, several causes are in operation; thus, the *delay in the absorption* of the fluid, this being sometimes attributable to the *imperfect solution of the salt*, and this generally the result of using *too little acid*.

The injection (a *gold* needle—not one merely gilded—should be employed), of the first few drops causes more or less severe smarting, which ceases, or nearly ceases, within a minute.

As a general rule, Dr. L. injects without reference to the date of the paroxysm. If during the cold stage, it may lessen, and sometimes stop the paroxysm. But Dr. Moore, of Bombay, who has adopted this plan of treatment in very many instances, recommends that the injection be made shortly before the chill.

The amount of quinine to be injected varies with circumstances—from three to six grains, or even more. Ordinarily, not more than 30 minims should be injected at one point. Let the second insertion (supposing 60 minims to be required) be not less than three to four inches distant. When there is a good deal of adipose tissue, 40 minims may be used at one spot.

Dr. L. has notes of 389 operations (two insertions each) on

179 patients. In no instance does he recall any unpleasant result in very young children.

In 104 cases, only one injection (two insertions) was made; in 6, there were five; in 1, *twenty-nine*; in 1, *forty*.

In 9 cases, this method succeeded after failure of remedies by the mouth. In 17 cases, there was no marked benefit; in 4 of these however, less than five grs. quinine were used; failure resulted in 4 other of these cases from mistaken diagnosis—the disease being continued fever, over which injections have no control. In 14 cases, relief followed within half an hour.

In 21 cases, the vomiting was so obstinate as to preclude the use of medicines—even nourishment by the mouth. In every case, this symptom was promptly relieved by the injection.

The effect of the hypodermic use of quinine differs essentially from that by the mouth in (1) seldom inducing severe cerebral symptoms, and (2) in *promptly* imparting a feeling of vigor and hopefulness rarely observed after the usual method of administration.

Protection of Hypodermic Solutions from Change by Keeping.—A paper on this subject by Dr. Edward R. Squibb, published in the Proceedings of the session of the American Pharmaceutical Association, held in Richmond, 1873, and recently reprinted in pamphlet form with other papers by the same author, is of interest in connection with the above selection:—

It is supposed to be established by the investigations of Dr. Bourdon, M. Delpech, M. Gubler, and M. C. Paul, that the growth of *confervæ* is the only cause of the changes which commonly occur in solutions of the organic alkaloids and their salts; and that these *confervæ* decompose the alkaloids and consume a portion of their constituents, so that the solutions become weaker as the growths increase. Various methods have been proposed and used to prevent these growths, but thus far none seem more simple or more effectual than the addition of one or other of the phenols; and the crystallized carbolic acid is perhaps the most convenient if not the best of these. * * * It becomes of some consequence to know how little of the protecting agent can be used with average success.

The experience of several years in this laboratory, has shown that one volume of a five per cent. solution of crystallized carbolic acid, in sixty-four volumes of a solution of sulphate of atropia of the strength of two grains in each fluid ounce, will generally, but not always, protect it from change. The carbolic acid here bears the proportion of about one-thirteenth of one per cent. * * * But once or twice in an experience of about six years, it has proved ineffectual for protection.

In the endeavor to answer this query with accuracy, the first result reached was, that accidental circumstances from unknown causes, sometimes prevent the growth of these confervæ in solutions not protected at all; and also admit of their presence in and absence from different bottles of the same solution, without discoverable relation to the proportion of the protecting agency. A series of solutions prepared with care in August, 1872, some unprotected, and others with various proportions of carbolic acid, stood until May, 1873, many of them remaining without growths of any kind, while those which produced confervæ did so without discoverable relation to the protecting agency. Supposing that the atmosphere of a laboratory might be the cause of these confusing results, fresh solutions of acetate of morphia and sulphate of atropia were made, the former salt having proved to be the most easily attacked and the most rapidly changed. The bottles containing these solutions were placed for one week with stoppers out, in a hospital where such solutions were very liable to change. The solutions were then distributed into small vials, some without protection, and others with various proportions of carbolic acid. These vials were observed every week during the months of May, June, and July, until they ceased to show any farther changes. One vial of the solution of sulphate of atropia which was entirely unprotected, failed, from first to last, to show any signs of change. Two vials of sulphate of atropia solution, and one vial of a pair of acetate of morphia solution, all protected with small quantities of carbolic acid, also failed to show distinct evidence of confervæ. But with these exceptions, the entire number of twelve pairs exhibited a diminution of confervoid growths, in proportion to the quantity of carbolic acid added, until the proportion of carbolic acid reached, in the solution of sulphate of atropia, about one-

eighth of one per cent., and in the solution of acetate of morphia about one-seventh of one per cent., all with larger proportions remaining clear and unchanged. Hence it appears that solutions of some salts, though of the same strength, require more carbolic acid for protection; but the proportion which under ordinary circumstances will protect the most difficult ones of those tried, does not exceed about one-seventh of one per cent.

But these solutions were all made with distilled water, and with more than ordinary care, and were all filtered. When similar solutions were made with ordinary undistilled water, nearly double the quantity of carbolic acid was required to afford a doubtful protection. Hence these solutions should, under all circumstances, be made with distilled water, and be carefully filtered.

The query may then be answered as follows: When such solutions are properly made, the smallest proportion of carbolic acid which will protect them from change, is about one-seventh of one per cent.: but that a proportion of one-sixth of one per cent. is practically better and safer in ordinary practice, and that this latter proportion is unobjectionable in all known respects. To make these solutions with this proportion: * * * first, make a five per cent. solution of carbolic acid.

Take of crystallized carbolic acid 10 parts, or 10 grammes, or 154 grains; distilled water 200 parts, or 200 grammes, or 3086 grains. Weigh the distilled water in a glass-stoppered bottle, capable of holding one-fourth more than the sum of the quantities. Melt the crystallized carbolic acid in the stock-bottle by setting this in water warmed to about $50^{\circ}\text{C.} = 122^{\circ}\text{F.}$, and weigh the quantity by pouring it carefully into the bottle containing the water, as it sits upon the scale. Then shake the whole together until the carbolic acid is dissolved, and filter the solution through paper.

Of this solution, about fifteen minims in each fluid ounce gives a proportion of one-sixth of one per cent.

For solution of sulphate of morphia, of the strength called "Magendie's Solution:"

Take of sulphate of morphia, solution of carbolic acid, 5 per cent., of each 2 parts, or 2 grammes, or 31 grains; distilled

water, a sufficient quantity. Dissolve the sulphate of morphia in about 50 parts, or 50 grammes, or 775 grains, of distilled water; add the solution of carbolic acid, filter through paper, and pass distilled water through the filter, until the filtrate weighs 57 parts, or 57 grammes, or 883 grains.

Siamese Twins.—This report is compiled chiefly from the *Philadelphia Medical Times*.

Chang and Eng Bunker were born some thirty miles southwest of Bangkok in Siam, in 1811. Their father was a Chinaman; their mother a native of Siam. They were the first born of fourteen children—four other pairs being twins. For many years prior to their death (which occurred January 17th, 1874), they resided near Mt. Airy, Surry county, N. C., where they were married, and raised large families of children. Chang was the left of the pair, and was much smaller and more feeble than his brother Eng. Their habits were very active.

During their infancy, their mother recognized their separate individuality, and also that there existed a common sensibility in the centre of the band which bound Chang and Eng together. At first the ligament was so short that they were compelled to be face to face. As they grew, the ligament seemed gradually to stretch until they were able to stand side by side, and even back to back.

The physiological evidences that the twins were distinct, were numerous and apparent. They had different forms, tastes and dispositions. All their physical functions were performed separately and unconnectedly. The sickness of one had no effect upon the other. Chang drank pretty heavily, but Eng never felt any influence from the debauch of his brother.

In August, 1870, Chang suffered from a paralytic stroke, from which he never fully recovered.

On Thursday evening preceding their death, the twins rode a mile and a half in an open wagon. The weather was very cold. Chang had been complaining for several days of cough, with distress and pain in the chest. On Friday morning, he said he felt better, but that the pain and distress were very great during the night.

The twins slept in a room with only a very young child present. Some time in the course of Friday night they got up and sat by the fire. Chang insisted on remaining up, stating that his breathing was so bad that it would kill him to lie down. Finally, the couple went to bed, and after an hour or so the family heard some one call. When they went in, Chang was dead. Eng was awake, and complained of agonizing pain and distress, especially in his limbs. His surface was covered with a cold sweat. At his request his wife rubbed his legs and arms, and pulled and stretched them forcibly. This was steadily continued until he went into a stupor, about an hour after the family were alarmed. The stupor continued up to death: according to the statements of the family, there were no convulsions. Dr. J. Hollingsworth, the family physician, did not reach the house until after the death of both of the twins.

Arrangements were effected as early as practicable to secure the co-operation of the College of Physicians of Philadelphia in making an autopsy. Drs. W. H. Pancoast and H. Allen, the Commission appointed to visit the remains, arrived at Mt. Airy Saturday evening, January 31st, and the following notes were taken at an

Examinations made Sunday, February 1, 1874, fifteen days and eight hours after the death of Chang.

The bodies were found in the coffin in a good state of preservation; there was a slight cadaveric odor about Chang, with marked passive congestion of the back of the arms and neck on both sides, and in a less degree of the posterior aspect of the forearms, buttocks, thighs and legs; there was none on the feet, where however, there was marked fulness of the superficial veins; this was better marked on the left side. There was a greenish discoloration on the anterior abdominal wall

Face.—Lips moist and discolored; peculiar reddish congestion sparsely distributed over malar prominence and beneath ear. Thoracic discoloration was much deeper on the side next to Eng.

The left nipple was visible in front well towards the middle line, the right one just showing. The fingers of the right hand—the paralyzed side—were forcibly flexed, although *rigor mortis* was absent.

In Eng there was passive congestion of back, most marked on buttocks and infra-spinous spaces—none on the front of the body; slight greenish discoloration of anterior abdominal wall.

In both subjects the hair of the head was gray.

On *the pubis* of each subject the hair of the *left side* was gray, that of the *right side* black.

The process of embalming was now begun. Incisions were made to the outer side of the median line of the abdomen in each individual, extending from the inferior margin of the thorax to a point midway between the symphysis pubis and the anterior superior spinous process of the ilium. The aorta was reached after the usual method, but was found to be in an atheromatous condition, compelling the selection of the left primitive iliac for the insertion of the pipe. A solution of chloride of zinc was then injected.

After the embalmment had been completed, the incision was continued upward and inward towards the band. Examination of the band through this incision convinced the Commission of its complex nature, and a complete study of the parts was suspended until removal of the bodies to Philadelphia.

The bodies were accordingly removed, and on Tuesday, 10th inst., they were exposed for study: they were at that time found in a satisfactory condition, except the right lower extremity of Chang, which required immediate care to prevent further destructive changes taking place.

At a meeting of the College of Physicians of Philadelphia, on the 18th inst., Drs. Pancoast and Allen presented a preliminary report of their dissection.

In injecting the solution of chloride of zinc (which was used at Mt. Airy for embalming), it flowed freely through the blood vessels in Eng, owing to the ossified condition of his arteries; but not so in Chang, owing to decomposition in the tissues and blood vessels.

The twins were united at the ensiform cartilage by a band four inches long, and eight in circumference. In Eng, the peritoneal cavity extended into the band by a pouch which terminated a short distance beyond the median line.* In Chang two

* When the liver was removed, an upper hepatic pouch was also found proceeding from Eng; so that the band contained *four* pouches of peritoneum.

peritoneal pouches extended into the band beyond the median line—one above and the other below the single pouch of Eng. On turning off the flaps, consisting of the anterior walls of the abdomen, it was found that the hypogastric arteries ran up in each body into the band, and were lost towards the common umbilicus in the anterior inferior surface of the middle of the band. The ensiform appendix was also prolonged, and united in the middle line.

Colored plaster injection thrown into a tributary of the portal vein of Chang passed freely into the liver of Eng, as well as into some of the mesenteric veins proper.

The apices of the hearts presented towards each other.

On Thursday, February 19, the Commission continued the autopsy, and found that the two livers, which were supposed to be joined only by blood-vessels, were one body; the parenchymatous tissue being seemingly continuous between them.

These disclosures show that any attempt during life to separate the twins would in all probability have proved fatal.

The scientific name given to these monsters is *Xiphopages*, belonging to the class *Anacatadidyma*; order, *Omphalo-xiphodidymus*.*

The examination is still progressing, and a farther report will be made at a later date.

Gelseminum.—C. D. Hodge, M. D., of Arkansas, contributes his experience with gelseminum to the *Southern Medical Record*, (Feb. 1874), as follows:

Shortly after the febrifuge virtues of gelseminum were first accidentally discovered by a Mississippi planter, it was put forth as a nostrum in the form of a branded tincture under the cognomen of "Speed's Tonic;" and seeing among some of my patrons who had purchased and were using the medicine, that it *did* possess very remarkable properties in controlling fever, by a little exertion I was fortunate enough to learn from one of the agents the plant, and as the vine grew abundantly around me, I lost no time in preparing a tincture, and instituting a series of trials, to get at its proper medical properties. * * * My ex-

† See Transactions N. Y. State Medical Society, 1866, page 209. Article *Diploteratology*, by G. J. Fisher, M. D.

perience fully warrants me in endorsing all that has been claimed by Dr. Anderson, of North Carolina, and Prof. Murray, for this agent as an antiperiodic. * * *

Again, the value of gelseminum is not fully appreciated in the treatment of neuralgias—especially those of an intermittent character. In these cases it may be given in appropriate quantities in combination with quinine, bromide of potassium, and muriate of ammonia. With the latter, we think highly of it in the treatment of either acute or chronic sciatica. In apoplexy, where there is arterial excitement, with congestion, but no *rupture* of the vessels, the gelseminum shows itself an agent of signal potency. * * * In a case of tedious labor, where a rigid os uteri or an unyielding perineum offers the obstacle, we have only to apply an exhausted glass tumbler to the sacral region—wait fifteen or twenty minutes, and let the patient have a commanding dose of the tincture—and complete relaxation is sure to ensure very soon. In treatment of irritable bladder, very favorable mention has already been made of this agent in some of the back numbers of the *Record*. It is also claimed as one of the “*very best remedies*” combined with opium, in dysentery. We can urge it as second to few, if any remedy, when associated with proper auxiliaries, in controlling recent gonorrhœa and acute ophthalmic affections. We will here casually say, owing to its peculiar physiological tendency to the organ, we believe the gelseminum will at no distant day take a prominent stand as an eye remedy.

The dose may range from three to twenty-five drops, according to urgency, and other pointing of indications. But we think it the better plan, particularly when given at short intervals, to use small doses, say four or five drops, and when its characteristic effects, muscular heaviness of the lids, perverted or double vision, etc., begin to be manifested, lessen the dose or prolong the spaces, or *suspend*, if effects are very marked. * * * We would say to those of our brethren who are disposed to give this article a trial, not to rely upon the *Fluid Extracts*, or any other preparation, except the *freshly tinctured green root*, the inner bark of the root at that. We are satisfied a non-observance of this particular has impaired the confidence of many. We think the root-bark should be consigned to the alcohol within six hours after being

taken from the ground. It should by all means be prepared in the month of September or thereabouts; for it is comparatively *worthless* in the summer. Our usual formula is six ounces of the finely bruised bark of the root to a pint of diluted alcohol—let stand the usual time, firmly express and filter.

Medico-Chirurgical Lessons of the late War from Southern Standpoints.—Dr S. S. Satchwell, of New Hanover Co., N. C., in the *Annual Address before the Alumni Association of the University of the City of New York*, (Medical Department) March 4th, 1873, says:

In this connection you will pardon an expression of State pride, and even of State's rights, in the remark, that the first operation for club foot ever performed on the American Continent was by an eminent and lamented surgeon of my own State, Dr. James H. Dickson. He operated at Fayetteville, North Carolina, in the month of January, 1835, upon a limb greatly distorted and much shortened, and the operation was entirely successful. * * *

The medico-chirurgical features of the late war as arising from the experience and observations of Southern army surgeons, convey some lessons of instruction and of enlarged views, which ought not to be lost upon the profession.

It has given increased confidence in the Southern States in the use of chloroform, although it holds a secondary position here in New York and other large medical centres. The reports of the surgeons of the various regiments, brigades and divisions of the Southern armies throughout the war, are almost unanimous in favor of its use and preference over any other anæsthetic. So far as ascertained, this is believed to be the general experience of the profession in the South. This great boon of science to humanity maintains again it seems, to a great extent, its former high position in most of Europe, after a temporary loss of popularity in some parts, from a few fatal results of its use. Its advocates contend that the main objections to its use are unsustained by facts, and the legitimate inductions of science and experience. * * *

The greatest Southern lesson is the evidence afforded of the

power of the human economy in the case of wounds and injuries, and in the relief of medical diseases. None are more ready to admit this fact, both in theory and practice, than the staunch advocates of antiphlogistic measures, in the treatment of the sthenic form of acute inflammatory action. In my four years' service in the armies of the South as surgeon, there were at least twelve thousand cases, of almost every variety of disease, medical and surgical, which passed through my observation and treatment in field and general hospitals. This great conservative law is the most impressive and lasting, from all that experience—not that the skill and appliances of surgery, and the resources of medicine are of less value and importance now than at any former period. So far from this, they were never more indispensable than during the war and since. That great contest affords overwhelming testimony of the inappreciable value of such aid, and of the great power and necessity of the physician and surgeon to armies as well as to the community. * * *

But it proves, contrary to former theories and teachings, that very few surgical injuries and wounds are inevitably fatal. Thousands of brave soldiers in the South, and no doubt in the North, now live to testify, in their own wounded persons, that though they were shot through the head, lungs, liver, and other vital organs, they nevertheless recovered, contrary to all former surgical opinion, and are now healthy and useful citizens. The danger of death from primary hemorrhage on the field, so much feared in both armies early in the war, and which became to be disregarded as experience showed that nature in most cases was, with some simple adjuvant, an efficient styptic in closing the wounded artery, finds a parallel in that restorative power of nature which rendered bullet forceps useless appendages to our surgical cases, and we returned home with them rusty. The same restorative action was seen in the reproduction of bone, often from a mere vestige of periosteum, and shows with other instructions of the times, that a new era in conservative surgery has dawned upon us. * * *

In no respect have the scientific lessons of the war been more instructive than in the increased importance given by them to the great questions of hygiene and sanitary science. * * * The blunders committed in the beginning, as to the health of

soldiers, were greatly owing to the defective knowledge and literature of the subject. * * * Not only were open barns and sheds more conducive to the recovery of the sick and wounded than close structures, however elegant and costly, but open tents were preferable to either, when the season and weather would permit, because more pervaded by good air and sunshine. That scourge of our armies, camp fever, or typho-malarial disease, as more properly called, with all its complications, was more manageable when treated in this way than in the confined air of hospital buildings, and the same was true of erysipelas, gangrene, and other diseases incident to army life, and sequelæ of wounds and injuries of battle. Early in the conflict, when Southern soldiers were supplied with an abundance of excellent tents, and a superfluous amount of badly cooked food, there was an immense amount of sickness, and great mortality among them. Later, and towards the close, when they were more constantly on the march, and tents almost unknown, and they were obliged to sleep on the naked ground, with the canopy of heaven as a covering, there was, amid all the privations of those memorable times, less sickness, and decreased mortality in their ranks.

A counterpart in Southern life is seen in the finer developments, healthier looks and lives, and hardier living of the children of scrofulous and consumptive parents, who, while supplied with simple but nutritious diet, live in open houses, often log huts, the year round, over the pale faces, attenuated forms, and sickly existence of the off-spring of similar parents of the same location, who pass lives in luxurious living and wealthy mansions, from which are so often excluded those natural and invigorating forces of heaven for raising children and promoting health and longevity. The principle finds exemplification in the legions of Southern soldiers, who, leaving home robust, stalwart, vigorous and resolute, succumbed to the privations and insufficiencies of army life, and were easy victims of disease and death. Those of a contrary type, often with tuberculous formations and the hectic glow of consumption on their cheeks, and who escaped other casualties of war, were, as a general rule, either greatly relieved or finally restored by the exactions of army life and the roughness and open air of field service.

Aphasia without Paralysis.—New Galvano-Caustic Battery.—At the first stated meeting of the New York Society of Neurology and Electrology (Jan. 21, 1874), Dr. SWEEZEY exhibited a case of aphasia without paralysis. The patient, a boy, aged nine years, had no previous morbid history, except some dyspnœa and palpitation following an attack of scarlatina five years ago. On Christmas-night, 1873, he went to bed in apparent good health, and on waking next morning was found to have lost the faculty of speech. Now complains of occasional vertigo and headache. There is some cardiac enlargement, with mitral systolic murmur. The memory for words is improving. There is not, nor has there been at any time, the slightest discoverable paralysis.

Dr. JOHN J. MASON mentioned that he had seen a case of aphasia without paralysis in a woman, a music-teacher by occupation, who suddenly became aphasic while reading a letter. She recovered from this, but had another sudden loss of memory for words a few days afterward. A singular symptom in this case was that sound seemed to awaken the faculty of speech. She could not repeat the words of a song of her own composition, but could sing them.

Dr. STURGIS had seen a case of non-paralytic agraphia and aphasia from syphilitic disease.

Dr. MEREDITH CLYMER had seen several cases of aphasia (two at least following fevers) unaccompanied by paralysis.

Dr. EDWARD C. SEGUIN cited the condition described as "toxic aphasia," which has been known to follow snake-bites.

Dr. JOHN BYRNE exhibited a new and compact galvano-caustic battery devised by him, and demonstrated its thermal power. He had ascertained that, although a pair of elements, of which the negative plate has a surface of, say, sixty inches, be incapable of heating a platinum wire, the same plates, if divided into a number of smaller strips, may be made to exert quadrupled thermal power when immersed in a single cell. The battery exhibited consisted of zinc and carbon plates about three and a half inches long by an inch and a quarter wide, arranged alternately in two rows, with very small intervals, the negatives and positives being respectively connected by wires on the upper surface of the binding plate. The cell thus

formed, about three inches square, was set in action by a solution of sulphuric acid and bichromate of potash, and sufficed to render incandescent a stout platinum wire of medium length. Two such cells are sufficient for any galvano-caustic operation. Dr. Byrne also showed an ingenious method of counteracting polarization of the plates by means of a small hand-ball pump and flexible tube, whereby air may be forced into the cell and the bubbles of hydrogen dislodged from the negative surface.—*N. Y. Med. Jour.*, March, 1874.

Mint as an Anti-Galactagogue.—Dr. Dasara determined to experiment for himself, and gives the details of a series of cases in which he tried the effects of the application of mint poultices, made from the young sprigs, at different periods of lactation. He found:—(1.) It is an established fact that mint has the power of suppressing the lacteal secretion. (2.) The suppression of secretion takes place at whatever period of lactation the mint is employed. (3.) The effect takes place in a very short space of time; according to his experiments in from three to five days. (4.) The suppressive action of mint can be localized to one breast. (5.) No danger, nor even any inconvenience arises, either to the mother or child, either from the use of the mint, or from the suppression of the secretion. Sig. Dasara does not state the species of mint he employed.—*The Practitioner*.—*New Remedies*, Jan. 1874.

Phytolacca Decandra.—C. H. Tidd, of Ohio, after reporting in the *Southern Medical Record* (Feb. 1874), the histories of several cases treated with this drug, concludes with the following paragraph:

That this remedy is equal to potassii iodidi in all cases of adenitis, I do not claim, but that in *certain cases* it has proven itself vastly superior in my hands I well know; and as a remedy in muscular rheumatism, and in some cases of articular, it possesses advantages over many of the highly vaunted remedies of the day.

Diabetes.—Dr. O. Shultzer claims great success in the treatment of diabetes under the free use of glycerine internally, with citric acid and abstinence from starchy food.—*New Remedies*, Jan. 1874.

Bromide of Potassium, as a Prophylactic to Mercurial Ptyalism.—M. E. Dozier, M. D., Attala, Ala., says:

Experience with the bromide of potassium has induced me to abandon the chlorate almost entirely, as the bromide answers the purpose more satisfactorily. The latter not only relieves the irritating effects upon the mucous surfaces—but in addition, induces soothing and quieting effects, which, certainly are much to be desired.—*Jour. Mat. Med.* March 1874.

Preservation of Vaccine Crusts.—Dr. E. L. Griffin, of Fondulac, Wisconsin, in a letter to the *North-Western Medical and Surgical Journal*, says: Crusts can be kept good and reliable by burying them in an open-mouthed bottle, in *Burnt Alum*, well and securely corked. This possesses better than anything I know of the property of non-absorption of moisture.

Inoffensive Sponge-Tents.—Lawson Tait, F. R. C. S., in the *Medical Times and Gazette* of January 10th, recommends the use of a five per cent, solution of oil of cloves in the preparation of sponge-tents, as a means of rendering them inoffensive and obviating the danger of septic peritonitis from their use. He finds a tent thus prepared perfectly free from the usual disagreeable odor after remaining twenty-four hours in the uterus.

Esmarch's Bloodless Operation.—In a note to the March No. of the *Richmond and Louisville Medical Journal*, Prof. Paul F. Eve states that he has recently resorted to this operation in two cases of necrosis of the tibia, with perfectly satisfactory results. The apparatus used—tourniquet and all—cost less than two dollars.

Erichsen on the Elastic Ligature.—In a letter to the *Medical Times and Gazette*, Mr. John Erichsen characterizes the use of Prof. Dittel's elastic ligature as “simply a return to mediæval barbarism.”—*N. Y. Med. Jour.*

Chloroform.—Dr. J. H. Saunders reports (*Canada Lancet*, March 2) a case of recovery without vomiting in a man who had swallowed an ounce of chloroform.—*Phil. Med. Times*, March 21, 1874.

Book Notices, &c.

Diseases of the Ear, including the Necessary Anatomy of the Organ. By A. D. WILLIAMS, M. D., (Formerly Lecturer on Otology in the Miami Medical College), St. Louis, Mo. Illustrated with Numerous Wood-cuts and one Lithograph. Cincinnati: Robert Clarke & Co., 1873. pp. iv—290. 8vo. Cloth. Price \$3.50.

This is not an exhaustive, nor, in our opinion, a systematic treatise, and does not supply the place of certain other books as a text for beginners or college students. Unfortunately there is an omission of reference to many facts marking the progress of otology, with which students should be made acquainted. There is, moreover, in certain portions, a want of method in description, which is apt to mislead the hasty, non-attentive reader; and the style of composition is sometimes so imperfect as to be ambiguous.

Notwithstanding this, the book under notice is in many respects a valuable one, and contains a large amount of practical information, nowhere else to be found in one volume—so far as we can now recall—and hence we can commend the book to physicians who care little for purely scientific investigations and otological literature, but whose sole object is to acquire a knowledge of the treatment of aural diseases.

The author is evidently a close observer, and an independent practitioner. He adopts the suggestions of others only when their correctness is verified by his own experience. He thinks that "this is the first book of the kind ever written in the West, so that it may be said to represent particularly Western ideas."

We were struck with the great anodyne and remedial virtues ascribed to atropine in diseases of the membrana tympani, in which "it seems to act specifically, * * * particularly when acute." In fact, the author uses a solution of it (from one to five grains to the ounce of water), dropped into the ear in *all* painful affections of the organ, and speaks of it as being the most effectual anodyne of all in use. He accidentally prescribed it in the first case in which he used it, since which time he has

abandoned all the other anodynes which he was previously in the habit of prescribing.

The book is tastefully gotten up on tinted paper of excellent quality, is quite free of typographical errors, and is printed with large type. In short, it speaks well for the Publishers in every respect.

An American Dictionary of the English Language. By NOAH WEBSTER, LL.D. Thoroughly Revised and Greatly Enlarged and Improved, by Chauncey A. Goodrich, D.D., &c., and Noah Porter, D.D., LL.D., &c. Springfield, Mass.: Published by G. & C. Merriam, State Street, 1874. pp. 1840, quarto. Leather. Price \$12.

This is the latest edition of the well-known "Webster's Dictionary, Unabridged," containing 10,000 words and meanings not in other dictionaries, and illustrated with 3,000 engravings, which give a graphic outline of the objects named. This truly great work has become so familiarly known in every section of the country—as indeed wherever the language is spoken—that we purpose merely to call the attention of our readers to the fact that its recent revision and enlargement fit it peculiarly in every way to the use of medical men.

It is a very great convenience to have at hand a dictionary of the English language, which contains so many medical terms, as well defined for all practical purposes as we find them in medical dictionaries. This desideratum is happily supplied in the great dictionary before us; and we call especial attention to it for the reason that it happily supplies a demand in this particular. So complete is the book in this respect that, in writing on medical subjects, one scarcely need refer to any other source for a satisfactory definition of any medical term that is in constant use. The great distinctive excellence of Webster's Dictionary is its unequalled excellence in *definitions*. In this respect it unquestionably has the pre-eminence over all the other confessedly great English dictionaries of the world. For this reason we recommend it above all others to the medical profession. In every particular this Dictionary approximates perfection.

Transactions of the Fourth Annual Session of the Medical Society of Virginia. Held in Norfolk, November 11th-14th, 1873. Pamphlet, pp. 124.

The papers published in this volume will lose none of their interest or value by comparison with the Transactions of similarly organized Societies in this country. The address by the late President, Dr. Harvey Black, and that by Dr. R. S. Hamilton embody suggestions of special moment to the laity as well as to the profession of this State. It is to be hoped that the Committee appointed to take the suggestions under consideration will present a full and satisfactory report at the next meeting.

The Supplemental Report on the *Differences Between the White and Black Races*, by Dr. T. P. Atkinson, ought to compel his "Boston Reviewers" to regret their former indiscretion in entering into a discussion on a subject about which, from the very nature of things, they can know but little.

In the Report on the Prevalence of Malarial Fevers in Louisa County, by Dr. W. A. Gillespie, we regret to have to note an unfortunate typographical error (not mentioned in the errata) in the second prescription on page 84. Instead of Gum Camph. 3j, it should read ʒj. While this paper contains no new recommendations, it is yet of value in that it recalls important facts too much overlooked or forgotten in this *new era*. It is, moreover, of value in that it makes record of a most singular prevalence of malarial fever in Virginia, which, commencing upon the banks of the Potomac, passed southward to North Carolina—Alexandria, Louisa, Amelia, and Nottoway counties being the principal points along the line. So well defined was the track of this fever in Nottoway, that, we are told by a practitioner of that county, it could be distinctly mapped out as a belt of a few miles in width. The attacks in many instances were quite sudden, and not infrequently fatal in their results.

Nitrite of Amyl as an Antidote to Chloroform, by Dr. W. C. Dabney, is an interesting and an important contribution, in which the results of several original experiments are detailed. Besides the purpose for which the experiments were especially designed to accomplish, they are not to be disregarded in considering the vexed question as to whether or not nitrite of amyl

is a cardiac stimulant. With our view as to the nature of cholera, no importance, in this particular, can be attached to the, of late, often quoted case (*Indian Medical Gazette*, May, 1873), in which Dr. D. B. Smith used nitrite of amyl hypodermically with negative results.

In the paper on *Chloroform in Obstetrical Practice*, Dr. A. M. Fauntleroy contributes the results of his altogether favorable experience. It brings forward prominently the several uses to which chloroform may be applied in the lying-in chamber. Beyond its intrinsic worth, we are indebted to this paper for a very profitable discussion occasioned by it, in which several gentlemen instanced cases in which chloroform acted unpleasantly—being the probable cause of acute mania in two cases. Without ranking ourselves as in any manner among the opponents of this anæsthetic, we can but think that its administration in *every* case of labor is injudicious, or, at least, unnecessary even to the comfort of the patient. In a case which fell under our observation, its administration by inhalation very evidently suspended “the pains” by inducing a state of inertia of the uterus—thus tending to prolong and otherwise embarrass labor. As soon as the chloroform was withheld, the pains returned and labor progressed rapidly to a natural delivery. But a point of practical interest that was elicited by this discussion was the fact that none of the gentlemen who participated in it had ever seen a *fatal* result from chloroform, even when administered for general surgical purposes. (The fatal case mentioned by Dr. Parker cannot be taken into account in deciding upon the dangers arising from the proper exhibition of this agent.) This we regard as a significant fact, for the combined experiences and observations of these gentlemen must aggregate very many thousand cases.

In the *Report on Epidemics of Piedmont District*, the Committee, Dr. D. A. Langhorne, Chairman, gives importance to the “horse disease” as a possible cause of the greater prevalence and fatality of cerebro-spinal meningitis in that section. Choleraic affections were common, and the country was threatened from the West by the approach of the terrible monster itself—epidemic cholera—which did reach Abingdon. In Amherst county, Dr. W. J. Jones reported through the Committee

the prevalence there of a singular affection, resembling pleurodynia, lasting from two to six days, and amenable to quinia and morphia. About Alexandria, Dr. B. Brown speaks of the unusual prevalence of malarial fever. He also notes the prevalence of epidemic diarrhoea, or *cholérine*, and concludes his part of the report with a history of variola as it occurred in Alexandria (1873).

We regret that want of space does not allow us an opportunity to do more than mention other papers by title, viz: *Saccharated Pepsin*, by Dr. C. W. Thomas, in which the details of some experiments are given, which favor the use of this preparation. *Some Neglected points in the Pathology of Typhoid Fever as furnishing the Proper Indications of Treatment*, by Dr. S. K. Jackson, in which disease he thinks "there is no time when we should not be administering some salt of ammonia—the nitrate when the fever runs high, the acetate during the diarrhoea, * * * the carbonate during delirium, if it occur, * * * and the hydrochlorate" if obstinate coma sets in; *Reports of Two Cases*, (1.) Foreign body in Rectum, (2.) Hepatic Abscess (?), by Dr. W. H. Bramblette; and finally, *An Improvement on Barnes' and Skene's Uterine Hydrostatic Dilators* by J. St. P. Gibson. The Reports of cases of Wounds of the Pelvis by Drs. S. C. Gleaves, and G. Wm. Semple are of special interest in connection with the paper by Dr. Hunter McGuire on *Gun Shot and other Wounds of the Peritoneum*, which paper will be noticed below.

In connection with the analysis, elsewhere made in this No. of the *Monthly*, of Dr. John Bartlett's article on the *Ague Plant*, we would ask the attention of our readers to his letter, and to the remarks made by Drs. A. G. Tebault and S. K. Jackson, (pp 24-25, Trans. 4th Ses. Med. Soc. Va.)

Dr. A. G. Tebault, London Bridge, Princess Anne County, is the President elect.

[Advantage is taken of this opportunity to state that a copy of the Transactions has been sent to every regular (practising) physician in Virginia whose P. O. address is on the Society's Register of Physicians in Virginia; and, at the request of fellows, to many in other States. If, however, any fellow of the Society has not received a copy, he will be supplied by forwarding his address to the *Editor of the Va. Med. Monthly*.]

Gunshot and other Wounds of the Peritoneum. By HUNTER McGUIRE, M. D., Richmond, (Professor of Surgery, Medical College of Virginia.) Pamphlet—pp. 12. From the author.

After detailing two cases of gunshot injury of the peritoneum without visceral lesion, Dr. McGuire alludes to two other cases which have come under his observation—all terminating fatally, and presenting peritonitis, with large quantities of bloody serum in the abdominal cavity as the pathological conditions; yet in none of these cases was there perceptible shock of injury or diminution of temperature. Want of shock is a marked feature in the case reported by Dr. Gleaves (*Trans. 4th Sess. Med. Soc. Va.*); and in the case reported by Dr. Semple (*loc. cit.*), while we are told, the shock was “very great,” it was nevertheless “soon recovered from.” There can scarcely be a doubt, from the descriptions given, that in both of these instances the balls penetrated the abdominal cavities; yet there is no evidence of visceral lesion. These six observations go to sustain the suggestion of Dr. McGuire, “that the presence or absence of *prolonged shock* in penetrating wounds of the abdomen will enable us to decide the presence or absence of visceral injury.” In looking up the literature on this subject of shock in abdominal injuries, it is singular how often the records fail to make any mention of its presence or duration. But it is common to find in systematic treatises on surgery such general statements as this:* “This (*prolonged shock*) is sometimes the only symptom which will enable the surgeon to diagnose that viscera are perforated;” leaving as the inferential diagnosis that, whenever it is absent, the viscera are not injured. It is to be hoped that future observers will be more specific in recording the presence and duration of shock in the class of injuries referred to; for should their experience confirm the suggestions of Dr. McGuire, a fact will be established—important in diagnosis, prognosis, and treatment.

But the main objects of Dr. McGuire’s paper are to give the statement of Dr. J. Marion Sims:†—“Septicæmia is, I think, the great outlet of life in ovariectomy”—a wider range, so as to

* *A Manual of Military Surgery, Prepared for the Use of the Confederate States Army*, 1863.

† *New York Medical Journal*, Dec. 1872, p. 569.

include septicæmia as the most general cause of death in gunshot and other injuries of the peritoneum not involving the viscera; and to recommend a treatment—a modification of that proposed by Dr. Sims himself—which will most probably remove the primarily fatal cause—drainage of the peritoneal cavity by making a free outlet at the most dependent point. In cases of ovariectomy, just before closing the abdominal incision, Dr. McGuire recommends that an opening large enough to admit the point of the finger, shaped like a horse-shoe, be made with a sharp bistoury from Douglass' cul-de-sac into the abdominal cavity; but instead of inserting canula or tube, he recommends that the edges of the opening thus made be touched with persulphate of iron to prevent immediate union. This opening is to be kept from closing by a double thread passed through the top of the flap—allowing the ends to extend beyond the vulva. Such an opening would add nothing to the dangers of the operation, and would heal as soon as the thread was withdrawn. In cases of gunshot injury, if the wound is not so located as to permit of enlargement, for purposes of drainage, Dr. McGuire would recommend that a puncture be made from the rectum into the cul-de-sac between this part and the bladder.

Without having the space at our command for a more lengthy notice, we may state that we regard this paper as a valuable contribution to surgical science, full of practical suggestions, and as recommending a procedure which is simple and well-founded.

The Popular Science Monthly, for March and April, published by D. Appleton & Co., New York, comes to us with its full quota of valuable articles. Its original and selected papers discuss subjects for the most part in their *scientific*, rather than in their *theological* light and bearings. The leading article for March is by Prof. C. H. Hitchcock, "On the World Before the Introduction of Life." It is written with the force and clearness of a scientist who is a thorough master of the question, with all its side issues. "Replies to Quarterly Reviewers," by Herbert Spencer, reveals the wonderful powers of this writer as a contestant in the arena of polemics. The April number is decidedly rich. Its papers are of rare value. "The Age of Ice,"

"The Pathology of the Passions," "The Evolution and the Origin of Life," are all admirable discussions of the subjects named. There is no falling off in this unique Monthly, but it continues to sustain and even to improve on the reputation won for it in its earlier numbers—confining itself to "the latest interpretations of natural phenomena," with their practical application to science, art, domestic life, government, "and to the better understanding of the nature of man." It is edited by Prof. E. L. Youmans, and is published at \$5 per annum. Its illustrations are fine.

Catalogue of the Graduates and Officers of the Medical Department of the University of the City of New York. July, 1872. Published by the Alumni Association.

In this Catalogue we find the names of many Southerners who have attained positions of prominence in the profession; yet, in many instances, their names are merely recorded without P. O. addresses, or mention of positions of honor and trust held by them since graduation. Such omissions might be misconstrued; we therefore take pleasure in publishing the request that each graduate will at once communicate to the Secretary of the Alumni Association (Chas. Inslee Pardee, M.D., No. 72 West 35th st., New York) answers to the following questions—which information will be published in subsequent editions of the Catalogue:

1. Name in full?
2. Post-office address?
3. Names and dates of literary degrees?
4. Places of honor and trust held since graduation; i. e., held by virtue of professional attainments—not places political or social—giving dates of appointments and terms of service?
5. Information of deceased graduates, including, if possible, their names in full, places of honor and trust held, etc.; and the time, place and cause of death?

Annual Report of the Baltimore Eye and Ear Institute. JULIAN J. CHISHOLM, M.D., &c., Surgeon in Charge.

Of the 2,156 persons treated at this Institute during the past

year, 1,581 were suffering from diseases of the eye, and £15 from diseases of the ear. Of the total number of patients, more than 2,000 were from the Southern States. Several interesting clinical reports are appended, which would well repay perusal.

Annual Address before the Alumni Association of the University of the City of New York (Medical Department), March 4th, 1873. By S. S. SATCHWELL, A. M., M. D., of N. C.

The Institution at which this address was delivered being our Alma Mater, we have derived great pleasure in following Dr. Satchwell through every line. The first portion is devoted chiefly to recalling his recollections of New York, the University and its associations. A wider range is taken in the latter part of the address, from which portion we have taken the liberty of making one of our selections for this number.

Medical and Pharmaceutical Notes. By ED. R. SQUIBB, M. D., Brooklyn, N. Y. (Republished from Proceedings of the American Pharmaceutical Association). pp. 66. From the author.

These *Notes* contain articles *On the Preservation of Hypodermic Solutions* (from which we have made extracts in this number), *Ergot and its Preparations*, *Rhubarb*, *Physicians' Pocket Cases*, *Buying Alcohol and Distilled Spirits*, and *A General Apparatus Stand*. They are all valuable and interesting, as are most of the productions of Dr. Squibb.

Annual Announcement and Circular. Long Island College Hospital. Session 1873-4.

The regular term of lectures in this College commenced March 4th, 1874, and will end the last week in June. Of the 42 graduates of the session 1872-3, none were from the South.

We have received (too late for notice in this number) from JOHN M. WOODWORTH, M. D., the *Annual Report of the Supervising Surgeon of the Marine Hospital Service of the United States, for the Fiscal Year 1873*, which includes *Contributions to the Study of Yellow Fever*, also received in separate form from J. M. TONER, M. D.

Proceedings of Societies.

RICHMOND ACADEMY OF MEDICINE.

[The regular meetings of the Academy are held on the first and third Thursday nights of each month in its hall, adjoining that of the Young Men's Christian Association, Nos. 817 and 819 Main street.

We are indebted to the Secretary, Dr. H. H. Levy for the reports here given of the Proceedings.—ED]

At the meeting held March 5th (the President, Dr. J. S. Wellford in the chair), Dr. H. V. Gray was elected to membership.

At the request of Dr. F. B. Watkins, Dr. Edwards read a letter which Dr. Watkins had received from Prof. James L. Cabell, University of Virginia, in answer to a personal inquiry as to his experience with Oxygen Gas as a Remedy in Disease, which communication is published in full in this number.

In remarking upon this letter, Dr. Watkins took occasion to present a copy of the Essay by Dr. Andrew Smith, to which reference is made in Dr. Cabell's letter, and in which are cuts of the apparatus, &c., employed by Dr. Smith.

Dr. J. L. Powell read a paper on the *Cause, Prevention, and Treatment of Typhoid Fever*. The disease is probably in some way due to defective drainage. He believes, moreover, that there is an intimate relation between malarial and typh-fevers—sometimes appearing as cause and effect. In treatment, “meat extracts” have been too much relied on.

Dr. M. L. James differed in opinion as to the existence of the intimate relation between malarial and typhoid fever. In the cities, he thought, typho-malarial was the prevalent disease, whereas in the country there are usually no typhoid complications in cases of malarial fever.

Dr. F. B. Watkins reported the case of a lady, æt. 28, who, during her pregnancy (which occurred three months after marriage), suffered so much pain in the left ovarian region, that sometimes she had to take as much as two grains of morphia

four times daily to obtain relief. Miscarried at the sixth month; but the pain in the side continued, and there was no apparent diminution in the size of the abdomen. Ovarian dropsy being the diagnosis, she was tapped to-day, and one and a half or two gallons of fluid drawn off. The operation demonstrated the cysts to be multilocular. The disease was rapid in development, for there was no sign or symptom pointing to ovarian trouble before her pregnancy, and he thought the size and shape of the abdomen after the miscarriage worthy of remark.

Dr. W. W. Parker mentioned the case of a woman, æt. 25, who consulted him on account of a difficulty in swallowing, especially fluid; suffered much; pulse intermittent. The action of an emetic prescribed brought up about a pint of mucus, and a piece of chicken skin, several inches long, which must have been in the stomach for two weeks, as she had eaten no chicken for that length of time. She had no trouble for several days after eating the chicken. The emesis perfectly relieved her.

Dr. Thos. P. Atkinson (visiting member from Amelia Co., Va.) related a case of a similar character that had come under his observation years ago, in which the offending substance was the pulp of an orange, which had doubtless remained in the stomach for a year.

Dr. W. W. Parker mentioned the case of a boy who suffered for nine days, and suddenly recovered upon passing at stool the pulpy part of an orange which he had eaten.

Dr. C. Tompkins referred to a case of tetanus, in which large doses of calabar bean were used without effect. This case is reported in full in this number.

Dr. W. W. Parker described the case of a boy who had a chill without recurrence. On the fourth day thereafter, he was called again to the boy, who was lying on his back, would not move, was listless; pulse 100; temperature low; abdomen tympanitic. The symptoms led him to diagnose typhoid fever, and to give a grave prognosis. The next day the patient was up, with good appetite, and really well. What was the disease?

After some routine business, the meeting adjourned.

The meeting of March 19th (President in the chair) was chiefly occupied with ethical questions.

Dr. L. S. Joynes, Chmn., presented the report of the Committee on Public Health for February, showing a decrease in mortality during that month as compared with the mortality of the same month during the previous year, when there were 20 deaths from variola and measles—none this year.

Dr. J. G. Cabell remarked that there were portions of the city in which the soil seems to be almost continually saturated—and these localities are known by the prevalence of malarial diseases. He thinks that culverts of uncemented tiles, instead of brick or granite, should be used in their construction in these localities. He asked members to note the effect upon health of laying culverts.

Adjourned.

NEW YORK ACADEMY OF MEDICINE.*

At the meeting March 5th (the President, Dr. Austin Flint, in the chair), Dr. J. Lewis Smith said, regarding *Bromide of Potassium*, that experiments as well as clinical experience had pointed out two main effects: (1) Contraction of arterioles and venules; (2) Diminution of reflex irritation. It is not poisonous in large doses. Long continued, however, it develops bromism, and sometimes in children transient stomatitis, gastritis, &c.—possibly due to impurities of the drug, as chlorides and sulphates have been detected in some specimens. If necessary to give it to patients with derangements of the alimentary canal, mucilaginous menstrua should be used. Though eliminated by the kidneys chiefly, and by the skin, the amount excreted is in small proportion to that administered. The carbuncles and cutaneous lesions—sometimes the results of its very long use—are probably due to its excretion by the skin.

Bromism is manifested by vertigo, dilated pupils, muscular debility, and a condition of reeling as if the patient was drunk. One drachm doses, given for a week, caused in a patient a want of the power of co-ordination in the muscles of the lower extremities. A case is recorded where four grains caused numbness of the muscles.

In infantile convulsions, Bromide of Potassium is more cer-

* Compiled from the Medical and Surgical Reporter.

tain than assafoetida, and not so dangerous as chloral, nor does it stupefy the patient. It also lessens the irritation of children; and used in dentition, it frequently obviates the necessity of the gum lancet. Also in whooping-cough and in severe cases of eruptive fever with a tendency to reflex irritation, it is especially serviceable. From its effect on the sensual organs, it is indicated in nocturnal emissions and in masturbation. It is about the only remedy that promises any relief in incipient meningitis. It is more serviceable in the epilepsy of children than in those of riper years, because it is more generally given at the outset of the disease. *Begbie* has used it advantageously in croup. *Reynolds* advises it as a calmative to the nervous system in night terrors and for somnambulists.

Dr. E. R. Squibb thought that in the treatment of epilepsy, bromism should be reached, and the remedy still continued. Forty-five grains three times daily will usually cause bromism in ten or fifteen days. We may detect but little relief until after three or six months. In one case, it was continued for three years before benefit resulted. To lessen the disagreeable taste, it may be given in a draught of ice-water—the cold dulling the sensibilities of the taste.

The Medical Society of the State of New York convened February 3d, ult., in Albany, and continued in session for three days. Many important papers were presented. The Legislature having refused to make any appropriation for the purpose, the Society determined hereafter to publish its own volume of Transactions. The Cash prize was awarded to Dr. Cruse, of Tarrytown. Dr. George J. Fisher was elected President, and Dr. Wm. H. Bailey, of Albany, continued as Secretary.

We do not understand why fraternal delegates were not appointed to the Medical Society of Virginia, when it had *by official request* appointed delegates to attend the New York Society. We know that the Virginia Society in return extended an invitation for the New York Society to send delegates to meet at the fifth annual session next fall in Abingdon, Va. If the omission on the part of the New York Society was an accidental oversight, we hope the error will be corrected at once, and that the delegates will be announced.

Editorial.

SALUTATORY.

It is not without some degree of trepidation that we enter upon the duties and responsibilities of the editorial management of a medical journal, to be conducted in the interests of a profession unequalled by any other in many of its relations to science and to society. The delicacies and difficulties of our new position are enhanced by the fact that, without experience in this department of public service, we have undertaken the conduct of the *Medical Monthly* at a time when the science of medicine is making its most rapid advances—demolishing hoary errors, exploding long-established theories, and planting itself, impregnably, upon well-tested principles as its only accepted foundation; and at a period when, with unprecedented rapidity, it is marching forward in the discovery and application of new remedies, and displaying a mastery over disease unparalleled by any previous period in the history of medicine.

As an additional ground of hesitation and apprehension, we have the fact before us that signal failures have been made, in our latitude, in the effort to establish medical periodicals of a high grade. Nor are we insensible of the fact that we incur pecuniary hazard in this adventure. But, impressed as we are by the conviction that there is *room* for a publication of the character that we have projected, and an imperious *demand* for it, to serve the profession in *Virginia, North Carolina, and the neighboring States*, we have assumed to undertake the hazardous enterprise, feeling confident that the *esprit de corps*, backed by the talent and *writing* ability of the medical profession in the Southern States, will rally to the support of the Editor in his somewhat perilous attempt to serve the profession.

Already, we are most happy to say, we have received cheering promises of co-operation and support from a number of the ripest scholars, the ablest writers, the most distinguished surgeons, and the most successful practitioners within the bounds of the field which we specially propose to occupy. The learning and the ability are at hand to enrich the pages of a medical

monthly with articles of the highest and rarest value. With these resources, which will be laid under contribution to our effort, we enter upon our work with hope.

Our *Monthly* is entirely independent. It is not gotten up in the interests of any particular medical college, or other institution or corporation, but is the patron of all that are deserving of commendation. The object will be to keep it up to a high tone, and fully abreast with the best journals of its grade and character.

Articles of *merit* will be accepted and published, irrespective of the *localities* from which they may emanate.

With such objects as are here proposed, is it presumptuous to solicit the patronage of the medical profession? This we venture to do, especially as this is the only medical journal in this State (the *Virginia Clinical Record* having been discontinued). And now, respectfully asking a little indulgence on the part of our subscribers until we can get our work fully in hand, we address ourselves to the untried experiment before us, confident of success, if devotion to our undertaking can achieve such a result.

VIRGINIA STATE BOARD OF HEALTH.

For the past two years this Board has maintained its organization at the pecuniary cost of its members—no part of the necessary expenses, even in the discharge of duties imposed by the State itself, being paid from the public fund. The Board has submitted to this imposition for so long a while simply because of popular ignorance as to its functions and aims; and because of the hope indulged that, within this period, legislators, at least, would inform themselves of the nature of the duties required of the Board, appreciate their importance to public welfare, and be led to make such an appropriation as would insure successful operation.

To supply the data upon which correct estimates of the value of such an organization might be based, sufficient facts and incontrovertible arguments have been presented in each of the Annual Reports, published in the volumes of "*Annual Reports of Officers, Boards and Institutions of the Commonwealth of*

Virginia" for the years 1872 and 1873 respectively. The first of these reports was prepared by the distinguished President of the Board, Dr. James L. Cabell, and the second by the no less competent and fortunately selected Secretary, Dr. Levin S. Joynes. A copy of each Report was placed in the hands of each Legislator on taking his seat in the General Assembly, in the just expectation that he would at least read the reports upon which he is to vote. But notwithstanding all this, we have reason to regret that there are not a few in the Legislature who, when approached even at this late day of the session, are ignorant of the fact that there is so much as a Board of Health in existence, and acknowledge that they know nothing of its objects, or of the benefits to be derived from it were it properly endowed.

The only possible source of opposition to the establishment of competent boards in every State, can spring alone from ignorance as to the meaning, scope and advance of State Medicine as an independent branch of science.

As to the question of pecuniary cost of sustaining such boards, indisputable facts in great number might be cited, the bare mention of some of which ought to be enough to prove the flimsy foundation of such an objection. No fact of the experimental sciences is susceptible of clearer demonstration than that many of the fatal epidemics which spread over the land can be throttled in their inception or stayed in their progress by well-timed and systematic effort. They are, then, to be classed among the preventable causes of death. Suppose that only one such epidemic—cholera, for example—is prevented or even rendered less fatal by half, does it need an argument to convince any one of the large sums of money which would be saved to the community? Let the reader calculate the cost of an epidemic to a State. The strongest of life insurance companies might be bankrupted: and it is in recognition of this fact that the *Insurance Advocate* of this city—the only journal in the South which specially represents the claims of these corporations—has been so earnest an advocate of the adoption of the measures proposed.

Then look at the ruin of commercial interests in general. The injuries inflicted in this respect upon Memphis and Shreveport cannot be speedily repaired. During the reigns of terror

last year, who would have dared to have established, or even have continued in commercial relations with either of these cities? Instead of maintaining their thrifty business relations, they at once, by their own negligence in great part, became the proper objects of the charitable gifts of the country. Would it not have been economy in either of these cities alone to have paid the entire expense necessary for maintaining a board of health competent to plan and to execute?

We write these axiomatic statements at this time because a bill is before the Virginia Legislature asking for an appropriation to maintain the Board of Health; and we understand that the question of cost is the only one to be feared. Yet, unless some appropriation sufficient to meet the necessary expenses is made, it is unreasonable to expect that the members of the Board can much longer submit to such an imposition as it has borne so long in patience.

In the event of the failure of the passage of the bill already favorably recommended by the committee of the Senate, who would be the sufferers? Certainly not the members of the Board, for they would not derive any pecuniary benefit from it; nor would physicians in general be the injured class, for they must depend upon the prevalence of disease in order to earn their livelihood. The noble physician who advocates the proposed measure steps upon a platform above sordid or selfish aims, and looks rather at the *protection* of his patients from disease, suffering and death.

We trust that in our next number we will be able to announce that an appropriation has been made in accordance with the recommendation of the Senate committee, which, though not sufficient to enable the Board to do what it desires to do, will yet enable it to make a commencement.

AMERICAN MEDICAL ASSOCIATION.

The twenty-fifth annual session will be held in the city of Detroit, Mich., on Tuesday, June 2d, 1874, at 11 A. M.

"Papers appropriate to the several sections, in order to secure consideration and action, must be sent to the Secretary of the appropriate section at least one month before the meeting which

is to act upon them. It shall be the duty of the Secretary to whom such papers are sent, to examine them with care, and, with the advice of the Chairman of the section, to determine the time and order of their presentation, and give due notice of the same. * * * *”—BY-LAWS, Art. II., Sect. 5.

The following are the Secretaries of the several sections: Practice of Medicine, *Materia Medica*, and Physiology, Dr. Geo. E. Frothingham, Ann Arbor, Mich.; Obstetrics and Diseases of Women and Children, Dr. Montrose A. Pallen, St. Louis, Mo.; Surgery and Anatomy, Dr. Alonzo Garcelon, Lewiston, Me.; Medical Jurisprudence, Chemistry, and Psychology, Dr. E. Lloyd Howard, Baltimore, Md.; State Medicine and Public Hygiene, Dr. A. B. Stuart, Winona, Minn.

The following Committees are expected to report: On Cultivation of the Cinchona Tree, Dr. L. J. Deal, Penn., Chmn.; on the Treatment of Fractures, Dr. L. A. Sayre, N. Y., Chmn.; on Gynæcology, Dr. M. A. Pallen, Mo., Chmn.; on some Diseases Peculiar to Colorado, Dr. J. Elsner, Col., Chmn.; on Rank of Medical Corps of the Army, Dr. J. M. Keller, Ky., Chmn.; on Prize Essays, Dr. G. K. Johnson, Mich., Chmn.; on the Progress of Otology, Dr. D. B. St. John Roosa, N. Y., Chmn.; on American as compared with Foreign Winter Cures, Dr. H. R. Storer, Mass., Chmn.; on Railroad Injuries, Dr. W. F. Peck, Iowa, Chmn.; on the Therapeutics of Ammonia, Dr. P. J. Farnsworth, Iowa, Chmn.; on the Relation of Physiology to the Practice of Medicine, Dr. E. W. Gray, Ill., Chmn.; on Puerperal Fever, Dr. W. O. Smith, Ky., Chmn.; on the Legal Relations of Moral Insanity, Dr. E. Lloyd Howard, Md., Chmn.

The following are among the amendments to the Plan of Organization to be acted upon: By Dr. N. S. Davis, Illinois—Strike out the second paragraph of Art. II. and insert the following:

“The delegates shall receive their appointment from permanently organized State Medical Societies, and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the Medical Department of the Army and Navy of the United States.”

Also, strike out the fourth paragraph of same Article, and insert:

"Each State, County, and District Medical Society, entitled to representation, shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for every additional fraction of more than half that number.

"The Medical Staffs of the Army and Navy shall be entitled to four delegates each."

By Dr. A. S. Maxwell, of Iowa: "*Resolved*, That in view of the many and important duties imposed upon the Nominating Committee, the Medical Society of each State and Territory that elects delegates, be requested, when selecting delegates, to nominate one member of such delegation as their member of the nominating committee, and also designate the mode of filling vacancies."

Secretaries of all medical organizations that have adopted the Code of Ethics are respectfully requested to forward to the Permanent Secretary, Dr. Wm. B. Atkinson (No. 1400 Pine st., Philadelphia), a complete list of their Officers, with their Post-office addresses, and the number of their members in good standing. This is the only guide for the Committee of Arrangements in determining as to the reception of delegates. It will enable the Permanent Secretary to present a correct report of the medical organizations in fellowship with the Association.

MEDICAL COLLEGE OF VIRGINIA.

The Nineteenth Commencement Exercises of this Institution were held in this city on the night of March 4th, 1874. Long before the hour for the order of exercises to commence, Assembly Hall was crowded to its utmost capacity with one of the most fashionable and intelligent audiences ever gathered together in an audience-room in this city. On the stage were seated many prominent gentlemen, besides members of the present and a number of the old Faculty.

At 8 o'clock Rev. Churchill Gibson, assistant rector of St. James' church, offered up prayer; after which, McCann's band played that sweet and melodious air, "Sweet spirit, hear my prayer." Dr. J. B. McCaw, Dean of the Faculty, then made a brief, though happy and pertinent valedictory address, at the

close of which he called the following-named gentlemen, who were graduates, to the front of the stage and presented them their diplomas:

Medicine: James A. Brown, Jr., Powhatan county, Va.; Walter D. Burfoot, Richmond; Arthur G. Cabell, Richmond; John H. Cowden, Boone county, Mo.; William R. Cowden, Boone county, Mo.; William H. Crafford, Warwick county, Va.; Albert G. B. Dann, Missouri; William R. Dufphey, Grayson county, Va.; Allibert E. Edwards, King William county, Va.; Wm. A. Nance, Charles City county, Va.; Rives Tatum, Chesterfield county, Va.; R. Temple Walker, King & Queen county, Va.; J. Wistar Walke, Chesterfield, county, Va.; George T. Walker, King & Queen county, Va.

Pharmacy: Judson Cunningham, Jas. F. Crane, and Olive A. Hawkins, of Virginia.

Rev. J. L. M. Curry, D. D., was then introduced, and delivered the annual address. His advice to the graduates was good and well-timed, and his language was chaste and striking. He pointed out as among the requisites to success, *assiduous application, honorable ambition, courage, gentlemanly manner, and religion.*

The occasion was in every respect a most agreeable and encouraging one. We trust that the enthusiasm manifested may be the forerunner of greater success than has ever been achieved.

And why should not the College be well sustained? It is favorably located in a large and rapidly-growing Southern city, with daily-increasing facilities for practical studies and clinical observations; and it has beside an able corps of professors, who avail themselves of every opportunity to impart instruction to their respective classes.

We are pleased to learn that the Summer School is now in session, with the usual number of students.

Florida State Medical Society.—A well-attended preliminary meeting of the physicians of Florida convened, January 14th, 1874, at Jacksonville, for the purpose of organizing a State Medical Society. Officers for the ensuing year were elected.

THE SIAMESE TWINS.

The examination of this *lusus naturæ* is at an end. And from the tone of the subjoined extract from the *Medical and Surgical Reporter*, we fear that nothing but imperfect reports of the examination will come to light. In our efforts to obtain the latest information regarding the autopsy, we have felt the disappointment alluded to. But knowing nothing of the circumstances we forbear comment.

THE LAST OF THE SIAMESE TWINS.—The bodies of the Siamese Twins were removed from the College of Physicians and Surgeons on March 20th, by Messrs. Christopher and Diogones Bunker, sons of the deceased, who took charge of them, intending to convey them to Mount Airy, North Carolina, where they will be interred. The Messrs. Bunker deny the reports which have been circulated, to the effect that the scientific commission who performed the autopsy on the bodies were obliged to pay a sum of money to the family for the privilege, and state that the family have no intention whatever of allowing the bodies to be exhibited for money, and to that end will endeavor to have the effect of the embalming fluid now in the bodies destroyed.

A general disappointment is manifested, both at home and abroad, at the slipshod and imperfect way in which the autopsy of the Siamese Twins was reported.

This comes of letting a matter of science be made a catch-penny item by a sensational medical paper, confessedly anxious to advertise itself "in any way."

The College of Physicians of this city was thus led into a discreditable snare; and now the rumor is that the regular organ of that body declines to exhibit the Siamese in its regular report of the Proceedings of the College. The Fellows naturally feel as if they had been sold cheap.

OUR ADVERTISEMENTS.

Every advertisement in this number has been solicited from parties that we ourselves can commend, or that have been recommended to us by responsible friends. We therefore take pleasure in calling special attention to each of them, with the remark that we believe that whoever may favor any of the firms herein advertised with their patronage will have no occasion to regret the move.

We invite the attention of our readers to the advertisement of the *Virginia Medical Monthly*, to be found on the third page of the cover.

Notes, Miscellany. &c.

Medical Legislation.—The Kentucky Legislature has lately passed a law requiring all who attempt to prescribe for the sick to be regularly graduated in medicine by a duly chartered medical college, or they must obtain proper credentials from one of the State Boards of Medical Examiners—one of which is in each judicial district of the State. It may be known that every candidate for practice in North Carolina must pass a satisfactory examination before the Board of Medical Examiners of that State before he can obtain license to practice. Other States are making similar requirements. Will Virginia legislators allow this Commonwealth to become the place of refuge and the abiding home of “herbists,” quacks, and ignorant charlatans? A little proper legislation is wanted.

The Kentucky Registration Law, recently passed, it is feared, will not accomplish the good results aimed at, as it is under secular instead of medical control.—*Richmond and Louisville Med. Jour.*

The Mississippi State Medical Association and The Medical Association of Georgia convened April 1st—the former in Columbus, Miss., and the latter in Thomasville, Va.

Monstrosity.—Dr. Balle recently exhibited to the *Faculté de Médecine* Blanche Dumas, from Issondun, æt. 14, whose body below the waist is double—the two parts acting independently of each other. The two legs used for walking belong each to a different trunk, while a third one is quite insensible to pain. Her health is good.—*Lancet*, March 7th—*Med. News and Library*, April, 1874.

Capital Punishment in Illinois.—In the Legislature of Illinois a special committee of five has been appointed on the subject of capital punishment. A strong outside pressure will be brought to secure the passage of a bill abolishing the death penalty. Petitions are coming to urge the measure forward.

Obituary Record.

Dr. Henry Howard, for twenty-eight years Professor of Medicine and Obstetrics at the University of Virginia, died March 2nd, 1874, at Charlottesville, Va., aged about 82 years. Dr. Howard moved from Baltimore to Virginia about the year 1835, and was connected with the University until near seven years ago, when he resigned, his advancing age unfitting him for the arduous duties of his chair. He subsequently became the President of the Citizens' National Bank of Charlottesville, which position he occupied at the time of his death. He was highly esteemed by his fellow-men—an honest, honorable, good man.

Prof. Henry Miller, M. D., one of the founders of the Medical Department of the University of Louisville, the eminent professor of obstetrics in that institution from 1837 to 1868, and afterwards occupying the same chair in the Louisville Medical College, of the Faculty of which he was made President—died in Louisville, Ky., February 9th, 1874, in his seventy-fifth year. He was elected President of the American Medical Association in 1859. His name is familiar to every physician of this country as the author of a systematic treatise on the "Principles and Practice of Obstetrics," which is an enlarged edition of his work (published 1849), "Theoretical and Practical Treatise on Human Parturition." He has, beside, made many valuable contributions to medical periodicals. His death is greatly deplored.

Dr. Henry William Fuller, author of the well-known work on Rheumatism, and other productions, died in December, in London, from pyæmic and pulmonary disease, in the fifty-sixth year of his age.

Forbes Winslow, M. D., died March 3rd, in his sixty-fourth year. His contributions to Psychological science especially gave him a world-wide reputation.

Virginia Mortuary Statistics for February, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Presidents of Boards		Dr. J. G. Cabell.				Dr J B Whitehead				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,009		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		28	27	31	33	13	7	8	11	4	8	11	5
Number still born.....		3		10		Color not given, 2				1		6	
AGES. Ages unknown not calculated.	Under 1 year.....	12		17		Color not given, 9				Color not given, 5			
	“ 3 years.....	9		12		“ “ “ 2				“ “ “ 1			
	“ 10 “.....	3		6		“ “ “ 4				“ “ “ 3			
	“ 20 “.....	2		5		“ “ “ 1				“ “ “ 3			
	“ 30 “.....	10		10		“ “ “ 4				“ “ “ 6			
	“ 50 “.....	6		5		“ “ “ 7				“ “ “ 5			
	“ 70 “.....	8		8		“ “ “ 8				“ “ “ 7			
	“ 80 “.....	2		.....		“ “ “ 1				“ “ “ 1			
	“ 100 “.....	2		.....		“ “ “ 2				“ “ “ 1			
	Over 100 “.....	1		.....		“ “ “ 1				“ “ “ 1			
Most frequent Causes of Death.	Consumption.....	6		16		2		2		2		6	
	Pneumonia.....	7		9		3		1		Color not given, 2			
	Whooping Cough.....	1		5		.....		1					
	Croup, Pseud. Memb.....	1		2		.....		1					
	Diphtheria.....	2		.....		1		1					
	Typhoid Fever.....	1		1		1		1					
	Cerebral Softening.....	.....		.....		1		1					
	Paralysis (General).....	2		.....		9		.....		Kind not stated, 1			
	Apoplexy.....	2		1		1		1		Color not given, 1			
	Convulsions.....	3		5		2		1					
Trismus Neonatorum.....		.....		1		.....		2					
Census taken in February, 1874.						Population is esti- mated.				Population is esti- mated.			

NOTE.—In Lynchburg 11 (colored) were certified by Board of Health; some probably died of consumption. The colored are generally the only inhabitants of the dark and damp cellars, which, with insufficient food, fuel and clothing, must account for excess of consumption among them.

The sanitary conditions of the several cities are good.

Health Officers of Maryland, District of Columbia, Virginia, West Virginia, North Carolina, and other Southern States are respectfully requested to forward their monthly reports to the *Virginia Medical Monthly* (observing the form above given) by the tenth of each month.

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Original Communications.

ART. I.—*Curiosities of Medical History—The Paris Pharmacopœia of 1758 and its Treasures.* By L. S. JOYNES, M.D., Emeritus Professor of Physiology in the Medical College of Virginia, Secretary Virginia State Board of Health, &c., Richmond. (Read before the Richmond Academy of Medicine and the Richmond Pharmaceutical Association).

New medical books, prepared by competent hands, are precious to medical men as oracles of professional knowledge, and records of professional progress and improvement: but old books are far from being valueless because of their antiquity; for the experience of observing and thoughtful men in ages however remote is not to be despised, and it is only by comparing the new with the old that we are enabled to realize and to measure the advances which the science has made. Thus the most enthusiastic follower of "young physic" may find both interest and instruction in the dusty and worm-eaten tomes of the past.

In no department of medical science, perhaps, is the difference between the new and the old more striking than in *Materia Medica* and Pharmacy; and it is highly interesting to scan the catalogue of substances employed as remedial agents by our predecessors, and the forms in which they prepared and combined them for daily use, and see how they differed from our own equipments for the conflict with disease.

Among a large number of old books presented to me by a physician advanced in years, and long since retired from practice—most of which are of the last century, and some of the century preceding—none has afforded me more interest than a

copy of the Paris Pharmacopœia of 1758—“*Codex Medicamentarius, seu Pharmacopœia Parisiensis, ex Mandato Facultatis Medicinæ*,” bearing on its title page the expressive motto “*urbi et orbi salus*.”

Now, chronologically speaking, 1758 does not seem a very remote date, nor in medical history do we regard it as by any means belonging to the period of antiquity. Reckoning from the revival of anatomical studies in the sixteenth century, medical science had made great strides. Harvey had been dead a hundred years, and the circulation of the blood was no longer a novelty or a subject of question: very nearly a hundred years had elapsed since the microscope had revealed the red globules of the blood, the spermatozoa, and other wonders of a world till then unknown: Sydenham, a great reformer in practical medicine, had long since passed away: Boerhaave, a more illustrious reformer still, had finished his career; and the medical world was illumined at the time by such shining lights as Haller, Van Swieten, Morgagni, William and John Hunter, and Cullen, of whom the last two were instructors of a generation of physicians who have but recently passed off the scene. On our own side of the Atlantic, Franklin had already “drawn the lightning from heaven” with his kite, and acquired a world-wide fame; and it was only seven years later that a regularly organized medical school started into existence in the city of Philadelphia.

The Paris Codex of 1758, therefore, is an essentially modern book, given to the world in an age of enlightenment and progress, and under the auspices of the learned faculty of the most refined capital in Europe. Yet it is difficult to convince one’s self, in scanning its pages, that a work containing so many things which are altogether strange and unfamiliar to our present ideas could have been published but little more than a century ago. The book is, of course, wholly in Latin, with the exception of the French translations of the titles of the *Materia Medica*; and it was fortunate that I received along with it a copy of the “*Lexicon Medicum*” of Stephanus Blancardus, published at Leyden just two years before it; for I there found an explanation of various terms which were sought for in vain in the medical dictionaries of Dunglison, Hooper, Nysten, and even Parr.

The Codex is almost as remarkable for what it *does not* con-

tain as for what it *does* contain. Leaving out of view such comparative novelties as iodine, bromine, and their compounds, hydrocyanic acid, chloroform, etc., we equally fail to encounter the now long-familiar names of *potassa*, *soda*, and *ammonia*, either separately or compounded. We find no *acids*, designated by this title—no *oxides*, no *sulphurets*, no *sulphates*, *nitrates*, *phosphates*, nor any other compounds designated by a corresponding terminology. Many substances of these different classes are indeed there, but under names quite different from those by which they are now known to us. Thus, acetic acid is “spirit of vinegar;” nitric acid, “spirit of nitre,” with the *alias* of “aqua fortis;” hydrochloric acid, “spirit of common salt;” sulphurous acid, “spirit of sulphur;” while sulphuric acid has no designation but “oil of vitriol.” As for the citric, tartaric, tannic, and other vegetable acids, their existence as distinct bodies was not yet known: they had not yet been separated and identified by the chemist.

The salts of potassa we recognize in the Codex as different forms of *tartar* and *nitre*: the changes are rung on these terms to find designations for them. The preparations of ammonia (other than *sal ammoniac*) are known as different kinds of “volatile salt” and “volatile spirit:”—the sulphates are for the most part different forms of *vitriol*—and so on. Then we encounter a multitude of such terms as “*sal digestivum*,” “*sal sedativum*,” “*sal febrifugum Sylvii*,” “*sal polychrestum*,” etc., which are altogether arbitrary, and inexpressive of the real nature of the compounds.

The fact is, that the chemistry of that day was but an improvement upon the old alchemy, and retained much of its unmeaning jargon. A few years were yet to elapse before the birth of the new chemistry, to be adorned ere long with its new and beautiful language, the invention of which was almost as great an achievement of science as the creation of the new chemistry itself. Lavoisier, who was to take such a leading part in these great reforms, was, at the date of the work under consideration, a college boy in Paris.

But, while our old Codex lacked many things which we now possess and value, it nevertheless displays a surprising abundance and variety of treasures. Its catalogue of the *Materia*

Medica specifies a great number of articles, mineral, vegetable, and animal, which are quite unknown to our later pharmacopœias, having been winnowed out by the rude and sacrilegious hand of science, which has cast to the four winds so much that age and authority had rendered venerable. Some of these articles are such as to impress us with a lively sense of the elegant and *recherché* character of the therapeutical resources and appliances of those days. Witness the following list of precious stones, and other articles highly prized, then as now, for purposes of ornament and display: *Emerald, ruby, sapphire, topaz, garnet, hyacinth, carnelian, lapis lazuli, rock crystal, jet, amber, coral* (red and white), *pearls* (both the genuine or oriental, and the "spurious or oyster pearl"), *mother of pearl, ivory*—well nigh everything precious, in fine, but the *diamond*, which ought surely to have been added to make the glittering list complete. Who can contemplate this sumptuous array of cures for the ills that aristocratic flesh is heir to, without regretting our lost treasures, and being keenly sensible of the poor figure which the gross and homely drugs of our daily practice make in comparison? What man of fashion and fortune, or what fine lady, would not swallow a few grains of powdered sapphire or emerald, paid for at a high figure, in preference to a cheap and vulgar dose of iron or gentian, and then proclaim with readier faith the sovereign virtues of the noble drug? I am not quite sure that we have done wisely to throw aside these attractive medicines for people with long purses.

I cannot undertake to state fully the purposes for which all these articles were severally prescribed: but the precious stones proper were regarded as "cordial," or tonic—a belief probably not altogether unfounded, seeing that they all contain a little *iron*. The Codex gives particular directions for their reduction to a fine powder on a porphyry slab, and their formation into little troches for preservation, in which form they could be readily pulverized again when prescribed by the physician. But one of them, the *hyacinth* (a stone usually of a yellowish-red color, but which, both as a gem and as a medicine, seems to have been pretty well forgotten), was made with sundry other ingredients into a confection—*confectio de hyacintho*—which must have enjoyed a reputation of some sort, as it is still re-

tained in the French pharmacopœia; though, singularly enough, the substance from which it takes its name no longer enters into its composition, having been rejected as inert and useless!

It may be safely affirmed, however, that for *certain class of patients*, and *a certain class of cases*, the precious stones would not be half so effectual in these officinal forms for internal use, as if *externally applied in the form of necklaces and ear-rings*. Such outward applications would prove sovereign cures for many a case of tearful hysteria, or brooding feminine melancholy.

The pearl was also credited with cordial powers, and we find that it entered into the composition of a *pulvis lætificans*—that is to say, exhilarating powder, or powder that maketh glad—which, however, had 18 other ingredients. There were also a salt of pearls, a magistery of pearls, tablets of pearls, besides other preparations into which they entered. Old Blancardus, however, lowers their therapeutical dignity seriously by affirming that they have hardly any virtues but those of an absorbent, which they share with the corals and other such articles; so that they are principally useful for the relief of acidity—a judgment to be confirmed ere long by that meddlesome intruder, chemistry, which was to demonstrate that the queenly pearl can have no greater medicinal value than the unregarded shell of the oyster: and the glory of the pearl now survives only in *pearl powder* and *pearl white*, which afford two more curious examples of preparations containing not a particle of the substance after which they are called.

The corals, both red and white, which have shared the sad fate of the pearl, were also presented to the consumers of physic in a variety of attractive forms—among them a syrup of corals, and a tincture of corals with “spirit of honey.” Mother of pearl, amber, and jet, were likewise variously prepared. An oil distilled from the latter entered into the composition of a “hysterical balsam,” and must therefore have ranked as an antispasmodic, while amber furnished contributions to a number of preparations of that class.

The mineral kingdom furnished sundry articles less pleasing to the eye, and to the fancy, than the precious stones, or even amber and jet. Among these were gypsum, hematite, red and

yellow ochre, pumice stone, marl, asphaltum, the magnet or loadstone, and what was called *lapis lynceis* (lynx-stone)—of which last I learn from Blancardus that it was fabled by the ancients to be formed by the crystallization of the *urine of the lynx* at the moment of its discharge.

The loadstone, or native magnet, was an object of peculiar interest, because of its remarkable properties, and was for a long time believed to possess remarkable medicinal virtues. It was not only pulverized for internal use, but entered into the composition of certain plasters—its use in this form having been suggested by the idea, at one time entertained, that a plaster thus composed and applied to a wound would extract an iron bullet, an arrow-head, or a fragment of any weapon which might be imbedded in the wound. But it was by-and-by demonstrated by experiment that the reduction of the loadstone to powder destroyed its magnetic powers. The entire loadstone was sometimes applied to the surface of the body, with a view to its action as an antispasmodic, through some supposed influence on the nerves and nervous centres. It was in this form that magnetism was first employed in the treatment of disease. Mesmer himself employed it thus for some time before he conceived the idea and commenced the practice of “animal magnetism.” We are further informed that quacks sometimes used the magnet in *hernias*, to draw the intestine upwards into its proper place, and that Avicenna (at a date, it is true, long anterior to that of the Codex) was so alarmed at the effects he supposed likely to ensue from *iron*, when taken in substance, that he seriously advised the exhibition of a *dose of magnet* after it, as an antidote, or preventive of dangerous results.

The true magnet, however, was not the only body known to the medical world by that name; for among the official preparations of the Codex is a “*magnes arsenicalis*,” compounded of arsenic, sulphur, and antimony, without a particle of iron. This arsenical magnet was a great topical remedy in cancer, and derived its name from the fact that it was supposed to *attract the morbid poison*, and draw it out of the body, somewhat as the proper magnet attracts iron; and a plaster into which it entered as an ingredient was styled *emplastrum magneticum*.

Not a little surprised was I to find *bricks (lateres)* figuring in

this ample *Materia Medica*: nor was the surprise lessened by the discovery that they were used in the preparation of an oil of bricks, or *philosophers' oil* (*oleum de lateribus, seu oleum philosophorum*). This remarkable oil was prepared by heating fragments of bricks to redness and plunging them into olive oil, then grinding them down and subjecting them to distillation in a retort by the heat of a furnace. The "oil of bricks" thus obtained was employed, with some 60 other ingredients (among them the oil of young puppies, oil of earth-worms, and pigeons' dung), in the manufacture of a plaster styled *emplastrum diabolitanum*, which, from the number and diversity of its ingredients, must have been regarded as possessed of some surpassing virtue.

I shall say nothing of the articles derived from the *vegetable kingdom*, except that "their name is legion," and that many of them are as foreign to our present drug-lists as if they had never been known to exist.

But the contributions from the *animal kingdom* are the most remarkable, and, to our modern ideas, often the most ridiculous. Here are new-born puppies (*catelli*) sacrificed for the preparation of the oil already referred to—the animals being boiled to disintegration in a mixture of olive oil and white wine, which was afterwards seasoned with sundry herbs, and duly strained and clarified. The fox also—not a whelp, but a fat adult—was condemned to death for the sake of the *oleum vulpinum*, which was prepared from his carcass. The bear and the badger, too, were made to give up their fat for medicinal use. But the mole and the hedge-hog were differently disposed of: they were directed to be burnt to a crisp in a close vessel and then pulverized; and we are informed by Dr. Cheyne that *cineres talpæ* (mole's ashes) were at one time famous as a remedy for epilepsy. The swallow was dealt with in the same manner, and so was its nest—for this was regarded as medicinal, as well as the bird itself.

Descending lower in the animal scale, we find the turtle (or perhaps rather the terrapin), both of land and water, the lizard (two species), the frog, the toad, the viper, the earth-worm, the snail, the wood-louse or millipede, the ant, the bee, the crab (two species), the craw-fish, the scorpion, the black or dung-beetle (*scarabeus niger fimorum—vulgo*, "tumble-bug"). A

dainty bill of fare, indeed, to tempt the senses and try the stomach and the faith of the sick man!

Some sort of medicinal virtue or special nutritive power seems to have been ascribed to each of these ignoble animals. Besides a broth made of the flesh of the turtle, there is an elegant and elaborate formula for a "restorative syrup of turtles" (*syrupus de testudinibus resumptivus*), containing some twenty ingredients besides the turtle-flesh, such as dates, raisins, liquorice-root, etc. Lizards were served up in the form of oil, made by boiling them "alive and green" (*viventes et virides*) in sweet oil and white wine. There were similar oils prepared from the frog and the toad, from earth-worms and tumble-bugs; and of the scorpion (the real scorpion, "from the forests of hot regions") there was a simple and a compound oil—the latter rich in its diversity of ingredients. The flesh of the viper, too, furnished a volatile oil by distillation.

But some of these animals were prepared in more ways than one: thus, the toad, which seems to have occupied quite an important place in the *Materia Medica* (having been a famous remedy for dropsy, among other diseases), was prepared with white wine, without the oil; also by burning to cinders, like the mole and the swallow. In the formula for a soothing preparation styled *balsamum tranquillans*, five toads are directed to be *boiled alive* in oil, with a multitude of other ingredients; and in another balsam the toad was represented by its head only.

The frog was the leading ingredient of a famous plaster (*emplastrum de ranis*), the formula of which calls first for "24 live bull-frogs" (*ranas aquaticas majores viventes*), next a pound of earth-worms, washed with white wine, then sundry roots and herbs, lard and veal's fat, oil of frogs, oil of earth-worms, powder of viper, and other choice ingredients.

But the *viper* appears to have occupied a much higher position in medical estimation than either frog or toad, if we may judge from the number and elaborate character of its preparations. There were the powder of vipers—the flesh, heart, and liver simply dried and pulverized; a broth of vipers, or viper-tea; jelly of vipers; syrup of vipers; troches or lozenges of vipers; then a volatile oil, a spirit, and a volatile salt of vipers: besides all which, the viper, in one or other of these various forms,

was an ingredient of quite a number of compound preparations—among them the famous *theriaca*. In fact, the physician could prescribe viper for his confiding patient in no less than *fourteen different officinal forms*. Of these, the *syrupus de viperis roborans*, or “strengthening syrup of vipers,” must have been really a delightful medicine; for, in preparing it, a concentrated decoction of 12 vipers fresh-killed (*minus* the heads and tails) was carefully compounded with best white wine, orange-flower water, cinnamon and other spices, and then made into a syrup with sugar.

This elegant article, together with the broth, jelly and troches of vipers, and the syrup and broth of turtles, no doubt represented in the practice of that day the extracts of beef, the meat juice, the “nutritive wine,” and other similar preparations of the present time: for the flesh of the viper especially, besides being perfectly innocent, was regarded as in the highest degree nutritious, and useful as a restorative in wasted and debilitated conditions of the system. It was employed from a very ancient date—as far back, it is said, as the time of Octavius Cæsar—and remarkable stories are told of youth, vigor, and beauty restored by its use. It had also a reputation for medicinal virtues in scrofulous, leprous, and other affections; and Dr. Theophilus Thompson, of London, in his *Clinical Lectures on Pulmonary Consumption*, published about twenty years ago, after noticing the high encomiums of it by the celebrated Dr. Mead,* intimates

* Mead was the most eminent physician of his day in London, and enjoyed a European celebrity. His estimation of viper's flesh as a remedial agent is well exhibited in the following extract from his “*Mechanical Account of Poisons*,” (ed. 1747): “Whosoever reflects on what has been said on this head, will very readily acknowledge that our physicians deal too cautiously or sparingly with a remedy which may be applied to very good purposes, when they prescribe a few grains of the powder of dried vipers, or make up a small quantity of their flesh into troches. Whereas, that service may really be done this way, the patient ought to eat frequently of viper jelly, or broth; or rather, as the ancient manner was, to boil vipers and eat them like fish; or, if this food will not go down (though really very good and delicious fare), to make use at least of wine in which dried vipers have been digested six or seven days in a gentle heat (Vid. *Pharmacop. Lond.*), from which I have seen very good effects in obstinate lepras; or, lastly (in some cases, especially where wine is not convenient), to take either the powder, or good quantities of the viperine salt, in which alone the virtue of all medicines made from this creature resides.” (This “vipe-

that viper's flesh may have been "somewhat capriciously dismissed" from the Pharmacopœia. Parr, however, in his old Dictionary, does not hesitate to say that "neither as a medicine nor aliment does the flesh of vipers appear to exceed that of eels:" and Lewis, in his Treatise on Materia Medica (1769), gravely affirms that he has "*known a viper taken every day for above a month, in disorders of the leprous kind, without any apparent benefit.*" One cannot help wondering where they got so many vipers in those days. It is to be presumed that every apothecary was compelled to keep on hand a heavy stock of an article so much in demand, or at least to have ready and sure means of obtaining the living reptiles when required for use.

(Concluded in next issue.)

ART. II.—*The Value of Atropia in Eye Diseases.* By JULIAN J. CHISOLM, M. D., Professor of Eye and Ear Diseases in the University of Maryland, and Surgeon in Charge of the Baltimore Eye and Ear Institute.

Atropia, the active principle of belladonna, is now indispensable in the successful treatment of eye diseases, and is among the most valuable drugs of the Materia Medica to the ophthalmic surgeon. He uses it in many ways: sometimes by mouth administration, or in plasters and ointments. By far the most frequent use of atropia is, however, as eye drops, and it is in this way that its application is of such great value. In no disease of the eye is a temporary application of atropia likely to do harm, and some of the inflammatory affections of the eye cannot be satisfactorily cured without it.

For local application, the sulphate of atropia is dissolved in distilled water, being readily soluble in the various strengths necessary in ophthalmic practice, without the addition of acids or other solvents to the water. *In this form its application to the eye-ball is never painful.* When a drop of acid has been put in the mixture to facilitate the dissolving of the alkaloid, the

rine salt" was a form of *carbonate of ammonia*, obtained by the destructive distillation of the flesh of vipers.—L. S. J.

application to the eye becomes painfully irritating. The usual strength of an atropia solution is from $\frac{1}{8}$ th of a grain to 6 grains to the $\bar{3}j$ of water—the strength of the solution to be used depending upon the effects which are desired. The 2,000th part of a grain of atropia will produce a wide expansion of the pupil when the iris is in a healthy condition. When the iris becomes inflamed, it may be necessary to use frequently a solution as strong as grs. vj to $\bar{3}j$ water, before the pupil will show any tendency to dilate. The rapidity with which a healthy pupil dilates will depend upon the strength of the solution. If a few drops of a weak solution of $\frac{1}{8}$ th gr. to $\bar{3}j$ of water be instilled into an eye with healthy iris, in a half hour the muscular fibres of the iris indicate the influence of the drug, and its action may continue for 24 hours. Should a similar number of drops of a $a\ gr. \text{ } vj$ to $\bar{3}j$ solution be used, the pupil responds, not only more promptly, but the effects are sustained for a much longer period, and in some very sensitive cases even for two weeks. When, therefore, it becomes necessary to enlarge the pupillary window for the more thorough examination of the vitreous chamber, including lens, choroid, or retina, the ophthalmic surgeon uses the very weak solution, as he desires the eye to recover as speedily as possible from the annoying effects of the drops. These annoying effects refer to the action of the atropia upon the muscles of accommodation. By this disturbance, the vision is made more or less dim for near objects, which deprives persons of the ability of writing or reading for the time.

The effects of atropia solutions when they enter the eye are, as is well known, two-fold—its most prominent action affecting the muscles within the eye-ball. In the anatomy of the eye, muscular fibres are found in the iris and in the ciliary bodies behind the iris. These muscles have two distinct sources of nerve supply. In the iris some of the muscular fibres are arranged as a sphincter around the pupillary opening. When these fibres contract under stimulation from the third pair of nerves, they make the pupil very small. A second set of muscular fibres radiate from the pupillary border to the external or corneal periphery of the iris. When excited through the sympathetic nerve, these pull the pupillary border towards the external rim of the iris, and thereby dilate the pupil. The circular

fibres and radiating muscular fibres of the iris are antagonistic in action. When paralysis of the third pair of nerves exists, the sphincter muscle of the pupil being no longer irritated, the iris seems to shrink away to about one half of its usual surface, leaving a large pupil in what is called *passive dilatation*. Should electricity or any other stimulation be applied to the sympathetic, so as to excite action in the dilating fibres while the dilated pupil shows sphincter paralysis, the iris will be crowded into so narrow a ring as to be represented by a mere circular line at the point where the cornea and sclerotic join each other. This condition of excessive enlargement of the pupil is very properly called *active dilatation*. A solution of atropia when instilled into the eye, produces 'active dilatation, inasmuch as it temporarily paralyzes the sphincter muscle of the pupil, whilst at the same time it irritates the radiating or dilating fibres; under its combined action the front of the eye seems all pupil.

If this were the sole action of atropia, it would at no time impair vision, for in cases in which the eye is deprived of the iris, either from congenital deficiency or from accident, vision still remains good.

Atropia in the eye usually makes cloudy vision, and this temporary defect depends upon the action of atropia upon the ciliary muscle. This ciliary muscle is located in such a way that when it is called into action it exercises so much pressure upon the edges of the crystalline lens as to thicken it at its centre or antero-posterior diameter, and thereby increases the degree of its anterior convexity. This changeable condition of the lens enables us to see more distinctly small near objects; and the states of contraction and relaxation of the ciliary muscle is recognized as the accommodation of the eye for seeing both near and at a distance. These muscular fibres of the ciliary body are supplied by nerve influence from the third pair, and over this nerve in its supply to the sphincter of the pupil, it has already been seen that atropia has a paralyzing action. When atropia is instilled into the eye, it also paralyzes temporarily these accommodating muscles, and renders near vision defective.

These intra-ocular muscles never become accustomed to the presence of atropia, however long a time it may be used. The pupil can be kept in active dilatation for months consecutively.

However long the period of use may be, it is only necessary to stop the application, when the pupil will resume its normal appearance with its accustomed play. We take advantage of this continued action of atropia, and keep the pupil dilated in cases of progressing cataract, so as to retain to the patient useful vision as long as possible.

In referring to the local application of atropia in eye diseases, one can hardly go wrong should he use it in any case of acute inflammation of the eye-ball. Should a physician have the necessary knowledge for the accurate diagnosis of eye-affections, he would discriminate so as to avoid its use in most of the affections that are purely conjunctival—such as ordinary catarrhal ophthalmias, accompanied by a hyper-secretion of mucus and a sticking of the lids during sleep. On the contrary, in all cases of corneal inflammation, especially those characterized by much watering of the eye with pain upon exposure to light, the oculist would use atropia largely as a local sedative or anodyne. Such cases, however, can get well without the use of atropia, although the instillation of the solution adds much to the comfort of the patient, and will expedite the cure.

It is when the iris is involved, accompanied by the usual secondary congestion of the conjunctiva and deep tissues around the corneal circle, that the local use of atropia becomes essential for successful treatment.

When inflammation seizes upon the iris, the great danger to the eye does not often lie in the amount of injury sustained by the iritic parenchyma, but to the sticking of the posterior uveal surface of the iris to the capsule of the crystalline lens, which in the natural state of the eye touches it. Should adhesions form between these two opposing surfaces and become firm, the eye is permanently impaired thereby, although the inflammation entirely subsides. Atropia and its allied drugs can alone prevent these adhesions from forming, or break them up whilst still soft, before they harden into connective tissue bands. Anti-phlogistic treatment, however active, cannot effect this.

The following is the condition of the iris when inflamed: Congestion of blood-vessels and consequent swelling is the common condition of all inflamed tissues. The iris when inflamed is no exception to this rule. When congested, it can only swell at

the expense of the pupillary space, as the unyielding cornea and sclerotic coats prevent any external enlargement. Congestion of the iris, therefore, must make the pupil small—sometimes nearly to disappearance. When the iris in this way becomes nearly a perfect septum, it is brought in contact with nearly the entire anterior surface of the lens. When the form of the anterior surface of the lens is examined, it is found to bevel away so rapidly towards its edges as to leave a considerable space between the posterior surface of the iris and itself. When the pupil is widely dilated, so that the iris recoils towards the ciliary region, it is drawn so far away from the lens as not to touch it at any point. It even leaves quite an interval between the two structures.

During the congestive stage of inflammation, when the iris is juicy from the imbibition of fluid into its cell structure, overgrowth and proliferation of cells take place—especially those placed on the posterior or uveal face of the membrane. This renders the back of the iris sticky; and as it is stretched over and lying upon the lens, it naturally sticks to this opposing surface. These adhesions must be at first soft and easily broken through, but in a very few days they become so firm that the pupil is restricted in its movements by them, and it cannot expand even under the use of mydriatics. When iritis is detected in its incipency with its congested parenchyma and contracted pupil, the frequent instillation of a gr. iv to 3j solution of the sulphate of atropia will excite such energetic contractions in the dilating muscular fibres of the pupillary orifice as to cause the iritic septum to be rolled back towards the corneal rim and far away from the lens surface. No damage can now be done to it, interfering with its transparency. This temporary condensation of the iritic substance into so small a space drives the blood out of the blood-vessels as a sponge is emptied of water by squeezing. By the removal of the hyperæmia, the inflammation is literally starved out. After a few days' use of the atropia, when the symptoms of inflammation altogether subside, the drops are discontinued. The pupil resumes its proper functions, and the eye is cured. The action of atropia in such a case is largely mechanical. By muscular pressure, condensing the substance of the iris, it cuts off the excess of blood from the irrita-

ble cells, prevents them from gorging themselves, and puts a stop to the subsequent train of proliferation. The irritation subsides before it has had time to damage the inflamed tissue.

Should the inflammation of the iris have existed some days prior to the instillation of atropia, the restricted and irregular dilatation indicates the extent of adhesion of the pupillary surface to the capsule of the lens. If the strong gr. vi to 5j solution be used several times a day to such an eye, the excessive contraction of the radiating fibres may prove sufficient to break the adhesive bands, and liberate the iris. They often will be forced to yield one by one under the continued application of the sedative drop. Should the iritic adhesions not yield, the disappearance of the inflammation is always more slow, and recurrences of inflammatory attacks are prone to occur.

The defective condition of an eye with adhesions of the iris to the capsule of the lens points out the necessity of making an early diagnosis in iritic troubles. Ophthalmic surgeons who are accustomed to detect shades of difference in the appearances of a diseased eye, soon learn to appreciate the incipient stage of iritic inflammation, and by the local use of atropia put a stop to the threatening disease. This condition of the eye is unfortunately overlooked by physicians under the epithet of cold in the eye, and as such is usually treated by some astringent lotion, and with internal medication. Such cases proving rebellious, are often sent to the oculist by the family physician, labeled obstinate cold in the eye. Defective vision, with a small irregular pupil and an adherent iris, points out too plainly that the disease was unrecognized iritis, with congestion of the conjunctiva as a secondary phenomenon.

It is of the utmost importance that the general practitioner should protect his patient from so unfortunate and serious an accident as an adherent pupil. If he is not skilled in ophthalmic diagnosis (and what general practitioner can be?), it would be far better for him to make it his rule of practice to put the atropia solution into every inflamed eye that he is called upon to prescribe for. *No harm can ever come from one application of the atropia to any eye*, and information of the utmost value in diagnosis is always secured. Should the pupil promptly respond to the stimulus and become large and regularly round, there can

be no iritis, and this most important point of diagnosis is clearly defined. The drop need not then be repeated. Better by far dilate the pupil of every diseased eye that one sees, rather than permit any eye to be permanently injured for the want of it. Should the pupil not respond, then the strong atropia solution should be continued several times a day until it can be clearly determined why dilatation has been interfered with.

The object of this paper is to induce physicians to make the local use of a solution of atropia their first prescription in all cases of inflammation of the eye until they are satisfied by the full expansion of the pupil that the iris has no part in the trouble.

ART. III.—*Case of Intussusception.* By ALFRED G. TEBAULT, M.D., President Medical Society of Virginia, Princess Anne Co., Va.

Invagination of the intestines in infants, unattended with inflammation, is not uncommon, and often passes off without danger; but far otherwise is the case when it occurs at the ileo-colic valve, and the action of the containing gut continues to draw up, not only the ileum, but the cæcum and its appendix. Here all the symptoms are similar to those of strangulated hernia, and are accompanied with grave inflammation. A diagnostic value is to be attached to the short paroxysmal nature of the pain, however rapidly it may occur in quick succession, as indicative of spasm rather than of inflammation. The subjoined case is offered in partial illustration.

Case.—A child, 10 months old, was very suddenly seized with pain and agony, which were manifested by constant wild screaming, violent agitations, and grasping at everything within its reach. It had been apparently in good health, though some degree of costiveness had existed for some time previous to this attack, and very recently it had passed a stool or two of scanty mucous dejections. Pulse very quick and small; some emesis; abdomen hot; tendency to convulsive movements; eyes wild; pupils dilated. It died within a very few hours, nothing having proved of any avail to afford relief. The treatment consisted

of enemata, gentle laxatives and revulsives. The fatal result was so rapid as to forestall all attempts at insufflation after enemata, however used, had failed to overcome the invagination.

Cadaveric Inspection.—Permission was obtained to examine the abdominal cavity, say about 10 hours after death. The abdomen was found much tumefied; the intestines presented externally a mottled appearance, the ascending colon being somewhat sphacelated, and the lower portion of the ileum dark red. As diagnosed, an extensive intussusception of the ileum was found into the colon, extending through nearly the whole of its ascending portion, and drawing in also the cæcum and the appendix cæci. The chief strangulation was at the ileo-colic valve, where also signs of the most intense inflammation existed, with a disposition to gangrene. Above this point, the mucous membrane was covered with exudations of coagulable lymph to some extent; and both in the small and large intestines the inflamed membrane could be easily removed by the fingers in patches. The muciparous glands in the large intestines appeared enlarged, distinct and white, surrounded by red areolæ. The mucous folds were also more injected than the adjacent parts; in some places the mucous and muscular tunics were thickened; and between them and the serous membrane, from which they were separated, were found collections of serum. In the small intestines the glands of Peyer were inflamed, and the muscular coat in many places was denuded of its investing membrane. At this point further examination was discontinued.

The interest of this case consists in the rapid organic changes and the speedy death that resulted.

A Recent Prescription(?)—Should any of our readers use this prescription, we trust they will drop us a line, informing us of the result. We are almost tempted to recommend it in *suitable cases*:—"A druggist recently received the following prescription, with a request to make it up: 'Fur Kramps: Tinct kamfire, one ounce; tinct lodenum, a little; tinct kyann pepper, two pen' worth; klourform, a little, but not much, as it is a dangerous medicine. Dose, half teaspoonful when the kramps come on.'"—*The Sanitarian*, April, 1874.

Correspondence.

Drainage for Health.

To the Editor of the Virginia Medical Monthly:

I ask a small space in your journal, in order to bring to the notice of the medical faculty of this State a suggestion of Dr. Joseph Wilson, Medical Director U. S. Navy, for a simple method of effecting sanitary drainage, which, if it should at all fulfill the sanguine expectations of that gentleman, will prove an inestimable boon to the residents in the malarious districts of Virginia.

As you are aware, I have had occasion recently to solicit information respecting the effects of defective drainage on the health of the people in the different counties of the State, by means of a circular letter of inquiry addressed to one or more physicians in every county. The answers which I have received indicate the prevalence, over much the greater part of the State, of every form of malarial fever, often of a very pernicious type. In most of these places before the war such fevers were either almost unknown, or they existed in a very mild form only. Then the lands were generally well drained with reference mainly to agricultural improvement, but with the incidental effect of subserving sanitary ends. The appearance of malarial fevers since the war, or, if they existed before, their actual greatly increased severity have coincided with an almost total neglect of drainage. In a few exceptional cases of systematic and efficient drainage, the sanitary condition of the localities in which they are found is reported to be entirely satisfactory. Unhappily in most places where the endemics abound and cause the greatest mortality, the difficulties are so great as to preclude the possibility of their removal either by individual enterprise or by the combined efforts of the people of the county. In many of these places, complete relief would require the removal of large masses of heavy drift wood or felled timber, which have collected for miles along the beds of sluggish rivers, the digging of wide and deep ditches, and the laying tile-pipes for deep drainage from three to five feet deep and about thirty to forty

feet apart. In a few cases, in addition to all this, it would be necessary to construct dikes in order to keep within their proper limits the beds of streams with low-lying banks, otherwise subject to frequent overflows. The time will, doubtless, arrive when all this will be done. A country with such magnificent natural resources as those of Virginia cannot be allowed to go to waste for the lack of enterprise and capital. But in the actual financial condition of our people, it would be idle to recommend such a system of "thorough drainage" as a measure of present relief. In view of this disheartening fact, one gives a ready attention to any plausible suggestion of a measure which may be admissible on the score of economy, and yet fulfill, however partially, the ends of sanitary drainage. I was, accordingly, very much struck with a proposition made by Dr. Wilson in an excellent article on "DRAINAGE FOR HEALTH" in the last number (April, 1874) of *THE SANITARIAN*. Without further preface, I cite the entire passage in which the proposed remedy is explained.

After alluding to the unhealthiness of the cleared and cultivated spots in certain so-called pine barrens in the Southern Atlantic States, he proceeds to say: "There is something astonishing in the salubrity of the pine forests of this region, which, by the way, are not 'barren' at all. There are immense tracts of this flat land occupied almost exclusively by pine timber. The trees grow pretty close together, so as to destroy the side branches as they grow up; and thus the earth is covered some inches deep with dead branches and pine leaves. The ground is generally quite dry, the water disappearing rapidly after a rain. These forests supply tar, timber and turpentine for the markets of the world; but, much more interesting to us, they are quite healthy—quite clear of malarial fevers. Various attempts have been made to account for this good health. It has been suggested that turpentine is wholesome and neutralizes in some way the malarial poison. There may be something in this notion, but there is plenty of fever about the turpentine stores, except in the forest. The thick carpeting of pine leaves has been supposed to prevent the malarial poison from rising; and it doubtless has a beneficial influence in this way.

"It seems to me that the pine trees act principally by drain-

ing the land; and this they do by the peculiar manner in which their roots decay. As the trees get too thick to thrive, the weaker die and decay, root and branch, but much more rapidly and completely the roots; and thus the whole situation of the pine stump becomes a very extensive and effective sink. The roots near the surface form an extensive series of radiating drain channels, and the deep roots form deeper channels by which the water rapidly sinks to its lowest level. The stump holes are very nice dens for coons and foxes.



NATURAL DRAINAGE SINK OF THE
PINE FOREST.

“My attention was first called to this subject by observing some deep holes in the pine grove of the Norfolk Hospital. These holes were four or five feet in diameter to an apparent bottom of loose twigs and leaves. I asked many questions about these holes, and could only elicit the conjecture that they might have been made by the diggers for Captain Kidd’s money. As there was no visible pile of dirt, this was not a satisfactory explanation. One of these holes was near a surface-drain that was being opened, and I directed the drain to be opened to the money hole with a view of filling it up. But after the next heavy rain I saw quite a large stream, eighteen inches wide and two inches deep, running into the hole and disappearing; a small Niagara. Kidd’s treasure must have knocked a hole in the bottom of the Hospital woods, and a stream of water was running down through it. I accidentally obtained an explanation by trying my cane on an old stump, overgrown with smilax (green briars). The strongest part of the stump was its bark, the rest was black dust, the cane passing easily its whole length in any direction. All the men about the place seem to know that the pine stump, in this manner, decays very quickly and completely, even to the ends of the smallest roots. Thus the whole matter is plain enough. These pine-stump sinks may be made more permanent, so as to be useful after the clearing of the for-

est, by filling them with clean, coarse sand or gravel from a brook, or even oak chips; they do not then fill up with surface dirt, and they continue to transmit water much longer.

"This action of pine trees in draining the land begins when the trees are quite small. The first year, from the seeds, the young trees are a foot high; the second year they are four feet, and the third year they are eight feet; and more than half of those that started are dead and decaying. Every year while the forest lasts, there are some trees thus going to decay, and they have amazingly deep tap-roots. *It thus appears easy to make a healthy place for a village almost anywhere*, as we have but to scatter a few pine cones on any suitable piece of land and wait three or four years. The Naval Hospital at Norfolk, Va., is separated from very malarious fields, naturally pine forest, by a pine grove about three hundred yards wide, and this is found to be amply sufficient. The *Eucalypti* of Australia are just now exciting much interest as fever-preventing trees; *but there is certainly no need of anything better than our Southern pines*. However, let us have the Eucalyptus; one of the species is a very elegant, large tree, and there is no danger of too many good things of this kind; and, besides, this tree may be suitable for some places where the pine does not flourish."

With reference to the Eucalyptus, I will only say that one of my correspondents, Dr. W. A. Thom, of Northampton county, states that he has consulted the Commissioner of Agriculture at Washington, and learns from him that "this tree will not flourish where the thermometer ever falls to 10° below freezing point," which, if correct, precludes its use in any part of our State. Let Dr. Wilson's theory of the preventive influence of pine groves be put to the test of experiment. Plant a belt of land several hundred yards wide, between the residences of the people and the sources of malaria, even if it requires the settlement to be completely surrounded by such sanitary cordons. It being well established that there is little or no danger from malarial poison in the day-time; the laborers can safely go to the fields in the morning and return in the evening. In time, as already intimated, a more general and perfect system of drainage for agricultural improvement will be gradually introduced, and our lands,

now scarcely marketable, will command their proper value and teem with an abundant and thriving population.

J. L. CABELL, M. D.

University of Virginia, April 3rd, 1874.

Practical Views on Lead-Poisoning.

These remarks are suggested by an article headed "Acute Lead-Poisoning—Recovery"—by Christopher Tompkins, M. D., Richmond, Va., which appeared in the *Virginia Medical Monthly* for April, 1874. It is understood that colica pictonum, the painter's colic, rachialgia, lead palsy, and several other names expressive of symptoms or place of residence, are synonyms of a disease characterized by morbid phenomena, produced by the gradual introduction of lead into the system. Two cases which occurred in my practice a few years ago, presented fully the lead cachexia as described by authors. One case was that of a painter, the other was that of a man engaged in the manufacture of type-metal. Both had been long occupied in their respective employments, and both alike exhibited the effects of lead-poisoning. The general constitutional disturbance of these cases was gradual, and their ultimate recovery, though slow, was complete. The pains of lead-colic are most excruciating. In fact, this symptom of the disease is neuralgic in its character. The disease is insidious in its approach; and other symptoms of lead-poisoning begin to show themselves after the colic abates or disappears, such as local palsy, anæmia, prostration; and if the vital powers become more weakened, the brain suffers, as shown by epilepsy and coma, from which condition we are told the patient rarely recovers.

The clinical history of Dr. Tompkins' case is rather at variance with these views. It appears from 2½ o'clock, P. M., on February 17th, to 7 o'clock the next morning, the patient took half an ounce of the acetate of lead(?) in four doses, each dose dissolved in one pint of water. "She slept well that night." About 7 o'clock, when the Doctor saw her, she was suffering "pain in the epigastrium, &c." He remarks, "that there seemed to be

not so much loss of muscular power as proper co-ordination, although if shaken and spoken to loudly she would answer questions intelligently; immediately afterwards she lapsed back into stupor. There was no blue line about the gums, and no wrist-drop." Under the treatment he describes, "she did well during that day and the ensuing night." "A light diet was allowed, &c." At the expiration of seven days the case was discharged cured. The Doctor informs us that the lead his patient took was "chemically pure." But it appears that the patient took each portion dissolved in a *pint* of water (not distilled), thereby getting carbonate of lead, more potent, however, to produce lead-colic in due time. But the Doctor makes his case of *lead-poisoning* rather a paradoxical one. For he says: "the case here reported is a strong one to show that acute lead-poisoning is not easily produced by the acetate of lead, for three drachms were certainly absorbed in this instance, and probably more."

H. WYTHE DAVIS, M. D

Richmond, Va., April 23rd, 1874.

A Woman with Three Breasts.

Editor Virginia Medical Monthly:

Permit me to add another case of multiple breasts to the one you will report in the May number of your journal.

Jennie C——, a handsome, finely developed mulatto woman, mother of three children, has a third breast underneath the left, just above the sulcus formed by that breast and the thoracic walls. This gland is probably six inches in circumference, provided with nipple, follicles, areola, &c., and yields a due amount of milk during the natural period of lactation, when it requires "milking" almost as regularly as the normal breasts. It is quite painful from over distension when not attended to. The nipple is too small for the child to nurse. I have attended her in two confinements.

GEORGE ROSS, M. D.

Richmond, Va., April 23rd, 1874.

Analyses, Selections, &c.

Urethral Stricture.—Dr. F. N. Otis, of New York, contributes a valuable article to the April No. of the *New York Medical Journal* on *Urethrotomy, External and Internal Combined, in Cases of Multiple and Difficult Stricture; with Remarks on the Urethral Calibre.*

In 1872, he had a case of impassable stricture at the bulbomembranous junction, and another with a long, close, perineal stricture, complicated by several perineal fistulæ, which were thought appropriate cases for external or perineal incision. In performing the operation, however, the external perineal incision was made subsidiary to the operation of internal urethrotomy—wherein the operation differed from the usual procedure. In the first instance, the object was to include in the same operation several strictures in the straight portion of the urethra, as well as the impassable one for which the perineal incision was demanded; in the second instance, to avoid the necessity of opening the scrotum in dividing the long, tortuous stricture which passed through a mass of indurated tissue traversed by the perineal fistulæ.

The usual preliminary steps for the operation having been taken, a small incision was made into the urethra upon the anterior face of the stricture, through which opening, in the first case, a fine, soft, filiform guide was passed through the posterior stricture. The staff of Maisonneuve was then entered at the meatus, and passed into the bladder. Blades of the instrument, Nos. 2 and 3, were then slid down the staff in succession, dividing, on the superior wall of the canal, all remaining strictures. A large silver catheter was then passed into the bladder. In the second case, the same plan was pursued; but there still remained the long and close stricture anterior to the perineal opening. A filiform guide was then passed *per meatus* through the stricture, and out of the perineal incision. The staff of Maisonneuve's instrument was then screwed upon it, and passed through the urethra and out of the incision; this was followed by blades Nos. 2 and 3 in succession; after which, a full-sized

catheter was passed through the entire urethra into the bladder. Satisfactory result in both cases. Detailed accounts of them were published April 15, 1873, in the *New York Medical Record*.*

Among the advantages claimed for this modified perineal section, are:—1. Methodical inclusion in the same operation of all points of stricture in the presenting urethra, with only a limited division of the external urethral walls, and yet one sufficiently extensive for the free discharge of urine and of fluids resulting from the operation.

2. Protection from contact with the urinary secretion of all divided strictures anterior to the perineal opening; thus obtaining the advantages of external section and internal urethrotomy, and at the same time lessening the disadvantages, if not the dangers, of each as separately performed.

Dr. Otis details at length the history of a case upon which he operated successfully, and mentioned some of the salient points of rare interest and value in the case.

First, the occurrence of an extraordinary number of distinct strictures—*fourteen* in all—in the same urethra, recognized by each of the gentlemen assisting in the original operation, namely, Drs. Geo. A. Peters, Geo. W. Ives, and J. DeF. Woodruff:—one at the meatus, one at one inch from meatus, one at two inches, one at three inches, six distinctly recognized bands from three to four and a half inches, one apparently extending from four and one-half to six and a quarter inches, and three bands distinctly arresting the blade of the urethrotome when passing from the perineal urethral opening backward through the membranous portion of the canal.

After reviewing the records on this point, he finds that Leroy D'Etiolles' case, in which eleven strictures were found, is not accepted by Sir Henry Thompson, as presenting strictures at all, but simply "*a series of irregular contractions*" of the urethral calibre. Sir Henry himself never found more than four in one urethra. But Dr. Otis thinks the cause of Sir Henry's

* [We are unable to see wherein this operation differs materially from that proposed by Dr. C. H. Mastin, of Mobile, Alabama, as described in his pamphlet on "*A New Method of Treating Stricture of the Urethra after External Section.*"—ED.]

failure to detect a larger number of strictures lies in the manner he advises for exploration. He uses "a flexible bougie of medium size," which "should be *rather slightly curved and blunt, not conical at the point.*" He further adds, "*if a No. 8 bougie (16 French) passes easily into the bladder, we may be satisfied that no stricture, or at most, a very slight contraction exists.*" Dr. Otis, on the other hand, does "not hesitate to say that, with a straight or curved bougie, with simply a blunt end, * * * no living surgeon could demonstrate the existence of more than three or four strictures in any one urethra;" and he thinks such a method "*unreliable and imperfect for the diagnosis of even a single stricture.*" A bulbous sound should be used.

As to the normal size of the urethra, Sir Henry Thompson, representing the English urethral interest, states it to be No. 8, English; while Dr. T. B. Curtis, to whom was awarded the Civil prize of 2,000 francs for a recent *brochure* on strictures of the urethra, and who may, therefore, be accepted as representing the present status of urethral science in France, states that *the normal calibre of the human male urethra is equal to seven millimetres in diameter.* Dr. Otis, after a careful examination of several hundred urethræ, within the past twelve years, by means of the metallic bulbous sound (which he presented to the profession in 1861), has demonstrated that "*the average calibre of the male urethra is not less than thirty of the French scale, or eighteen of the English scale; and that the great majority of strictures which are the sources of grave annoyance, and call imperatively for treatment, are above what is set down by the French and English schools as worthy of consideration.*" He has, however, seen occasional extremes in the size of healthy urethra, varying from twenty to forty (of the French scale?). With the bulbous sound, he has within the past two years recognized, in more than a hundred cases, distinct bands of stricture in the urethra, where No. 8, English, or even 21, French, could be passed into the bladder "without giving the least evidence of contraction at any point." He mentions these facts to demonstrate "*the absurdity of fixing * * * a standard calibre for the human male urethra; to show the necessity of making every urethra a law unto itself; and to enable the surgeon to judge of the * * * contraction, in*

any given urethra, by the normal calibre of that individual urethra, as ascertained by internal measurement."

The occurrence of gleet is the sign that the plastic material, laid down in the antecedent inflammatory condition, has begun to contract the normal urethral calibre, whether it be twenty or forty millimetres in circumference, and that nothing short of a complete restoration of the normal calibre will afford a cure. Sandal oil may stop it for a time; and so may injections. But a little vinous or venereal excess will reproduce it, and thus the case goes on, until finally an attack of retention of urine announces that there is strictured urethra.

In examining for urethral stricture, it is important to recognize the fact that the meatus bears necessarily *no* proportion to the actual size of the urethra. If there are any symptoms of stricture, or if any chronic irritation of the genito-urinary apparatus exists, the meatus should be freely incised, and a thorough examination of the canal made with a bulbous sound. Henle (*Handbuch der systematischen Anatomie des Menschen*, p. 417) has demonstrated, contrary to the descriptions of many who claim that a sort of sphincter is found there, that there is no abrupt enlargement after passing the external border, that simply horizontal muscular fasciculi, or plates, which are continuous with the muscular stricture of the urethra, surround the opening.

To prevent the return of stricture after operation, the stricture must first have been thoroughly sundered at some point, either by rupture through dilatation more or less rapid, by division, or division. All urethral strictures are composed of elastic tissue, and nothing short of *complete* division of the constricting band can ever produce more than temporary relief. The records of more than fifty cases, operated on in accordance with these views by Dr. Otis, show that strictured urethræ can, with certainty, be restored to their normal dimensions, without fear of subsequent contraction. If, after an operation, complete division is maintained by suitable means until healing of the parts has occurred, no re-contraction can ever take place.

The operation is scarcely more hazardous, he ventures to say, than temporary or transient dilatation, as usually practised by surgeons.

Remarkable Recovery from Abdominal Section.—Dr. Cheever reports the following case: Mrs. L., a young, healthy woman, has borne two children—one in 1871; the second, male, weighing nine pounds, April 9th, 1873. She was up ten days after labor, which was natural.

On examination, June, 1873, an oval, hard mass, larger than an ostrich egg, occupies the right side and part of the centre of the abdomen. At a point near the umbilicus, it adheres to the thinned skin; otherwise it is freely movable. There is no sign of softening, œdema or fluid. Though dull on percussion, the resonance of the bowels is transmitted through it. When the abdominal muscles are caused to contract, it becomes firmly fixed. The hand can be pressed in between it and the pubis. The pelvis is empty. The uterus is normal in size, position, depth and mobility. Bladder and rectum not affected. Though a little anæmic, the patient is otherwise in good health. An operation was decided on.

A vertical cut, about four inches long, two inches to the right of the umbilicus, was made. My design was to cut over the rectus, rather than in the linea alba, that I might thus see the relation of the muscular fibres to the tumor. The knife penetrated at once into the tumor, without any appearance of muscle. Everything here was absorbed by the growth. The substance of the tumor was sarcomatous, firm, whitish, and homogeneous. There was no fluid. As it was found impossible to reach the edge of the tumor through the single vertical incision, this was prolonged to six inches, and a cross cut was made to the right, four inches. Here, by careful dissection, the aponeurotic sheath was made out, lying over the tumor, and it was demonstrable that the foreign growth was beneath, or in the abdominal muscles. Dissecting towards the right, the edge of the tumor was reached, and it was found that it could be lifted and separated from its bed. While conducting this enucleation as gently as possible with the hand, two fingers slipped, without warning, into the peritoneal cavity. The peritoneum was here, and further beneath, adherent to the under surface of the tumor.

The tumor could now be demonstrated to be free from internal attachments, except to the peritoneum. To leave it was almost certainly fatal. It had been so scored and disturbed that

it must slough; and it communicated beneath, by a lacerated wound, which it was impossible to close, with the peritoneal cavity. On the other hand, to remove it, would take away a portion of the abdominal wall, muscles, and peritoneum. The patient's general condition was good; breathing quiet; pulse full; no syncope or vomiting. I decided to complete the operation.

Proceeding now with excusable boldness, it was easy to remove the tumor, by free cutting and dissecting. This was at once done. On the left side, the rectus muscle was not much disturbed. On the right, it was quite destroyed. A strip of peritoneum, fully four inches wide at its widest part, and perhaps six inches long, tapering down at its extremities, was removed with the tumor. The abdominal cavity was now largely uncovered. The colon and stomach, as well as the small intestines, were visible. As quickly as possible, two large warm sponges, were put in the site of the tumor, and the hernial protrusions repressed. Warmth was applied to the chest, and a brandy enema given. The patient vomited, but soon rallied. A considerable time was consumed in securing vessels all around the incision, of which a great number had to be tied, including the epigastric artery. The cavity of the abdomen was sponged free of clots, and long, deep, silk sutures were passed. It was impossible to bring the peritoneal edges within two inches of each other in the centre of the wound. The ligature-ends were all brought outside, and a separate set of sutures closed—without tension—the three flaps of skin which had been dissected off the deeper parts of the tumor, where it was not incorporated with the skin. Broad, adhesive strips were firmly applied; then cotton wadding, and a binder. The patient was immediately lifted into a warm bed, between blankets, without sheets, and as soon as she roused and complained, she received one-fourth of a grain of morphia subcutaneously. Menstruation came on seven weeks after the operation. The patient laid upon her back four weeks. She sat up at the end of six weeks. She walked the tenth week. The tumor proved to be a spindle-celled sarcoma.—*Boston Med. & Surg. Jour.*, Feb. 19th, 1874.

Cholera.—During the epidemic in Munich, which commenced November 15, 1873, there were, up to March 10th, 2,931 cases and 1389 deaths. The number of cases was daily decreasing.

Belladonna in Aphonia.—T. Curtis Smith, M.D., of Middleport, Ohio, says:—In February, 1873, I was called to see Mrs. E., æt. 28, who had recently been afflicted with measles. She was the mother of two children, and usually enjoyed very good health in every respect. Temperament nervous. In connection with, and for a fortnight subsequent to the attack of rubeola, she had also an irritative fever of a rather asthenic grade. * * * At the time of my first visit she had not been able to speak above a whisper, and that with much effort, for five or six weeks. Examination showed much general debility, and also the mucous membrane of the pharynx, as far as could be seen, greatly congested and apparently thickened. From this fact, and the existence of aphonia, I believed the mucous membrane of the larynx was also greatly hyperæmic. I placed her on general tonics, and directed the fluid extract of belladonna to be taken in small and often-repeated doses till the throat and mouth should become very dry. On the second day after this I called, finding her pretty fully atropinized and able to speak audibly, but with some effort. The voice rapidly improved, and in a week she could talk with quite as much ease as ever. Her general strength, however, was only returning slowly, and she was still pale and weak, so that it could not have been the general tonics that restored the voice so soon.

A few days later I was called to Clifton, W. Va., to see a boy æt. 4 years, who had just recovered from measles; but the sequence of aphonia still clung to him. I placed him on the same agent as the first case. In two days he ceased to whisper and began to speak audibly, his voice in a few hours thereafter becoming quite normal. The agent was continued but forty-eight hours.

In March of the same year, I saw a third case in a married lady, who, for ten days subsequent to the complete subsidence of all symptoms of rubeola, was still afflicted with aphonia. Her general health was not then greatly below par, so I simply gave the belladonna alone. As soon as the throat became thoroughly affected with the sensation of dryness, the voice became audible and was soon fully restored.

I was led to use the agent from its known influence over the mucous lining of the throat and mouth, and from having ob-

served its beneficial effects on the same in a hyperæmic and inflamed condition.—*South. Med. Rec.*, March, 1874.

A Woman with Three Breasts.—A. R. Kilpatrick, M. D., of Texas, knew an elderly lady, living in Rapides Parish, La., named LaCroix, who had three breasts. She was about sixty years old, the mother of several children, all grown, and the males were all tall, large men, showing that they had been well nourished. The breasts were in a line across the thorax; the two outside ones were in the positions usually occupied, while the third was between them, directly over the sternum, and not quite as large as the others; but she said there was no difference between it and the others, becoming enlarged during pregnancy, and in time of lactation, milk was secreted in it, and the children nursed from it.—*South. Med. Rec.*, March, 1874.

Treatment of Breech Presentations.—Dr. R. A. F. Penrose, Prof. Obstetrics, &c., Univ. Pennsylvania, concludes a most valuable series of lectures on the causes, diagnosis, mechanism and treatment of breech presentations with the following remarks, published in the *American Supplement to the Obstet. Jour. of Great Britain and Ireland for March* :

Now, gentlemen, I wish to be understood, and quoted, as stating absolutely and positively, *that the forceps are seldom or never required*, in the delivery of the head, in breech presentations. The use of this instrument, so universally recommended, is a *rough, unintelligent application of unnecessary and badly applied force*. A thorough knowledge of the mechanism and physiology of breech presentations reveals forces amply sufficient to accomplish the much-to-be-desired speedy delivery of the head; in other words, *the power*, in such cases, should reside in the well-instructed brain of the intelligent practitioner, and not be sought for in the rude grasp of his iron instrument.

When you meet with a case of breech presentation, where the head has reached the superior strait, and the mother cannot supply the necessary expelling power, *do not think of the forceps, but apply your hand or hands on the lower part of the abdomen*, or an assistant can make the pressure for you, and

press directly down on the head; you can, by this proceeding, apply any amount of a vis à tergo; you can supplement entirely the lost force of the uterus, and the lost force of the mother's efforts. Take this idea, then, with you, that, in almost all cases of breech presentations, the forceps are unnecessary, and that the rapid delivery of the head can always be easily and quickly secured by the bearing-down efforts of the mother, aided, or even replaced, by the bearing-down efforts of the attendant.

Weight of Children at Birth.—Dr. John H. Booth, of Tally-Hoe, N. C., contributes to the March number of the *Southern Medical Record* some original observations on this subject. He says:—There can scarcely be found a practitioner of standing in this part of the State, who has not delivered a child weighing at least fifteen pounds. A midwife in this neighborhood delivered a negress of a child that weighed sixteen pounds, and a white woman was delivered of two living male children, four years since, weighing twelve pounds each, on the same plantation.

* * * * I delivered a woman of a boy weighing fifteen pounds, and measuring eight inches across the shoulders. * * * But a couple of practitioners had delivered the same woman a few years previously of a male child weighing fourteen pounds and some ounces. The breech presented and it was delivered instrumentally.

Of 37 new-born infants, 21 males and 16 females, the weights of which I have recorded, the average weight of the males is eight pounds, thirteen ounces and eleven drachms; of the females seven pounds and seven ounces. The largest male weighed fourteen pounds, and the smallest six pounds. None of the others, except one, weighed less than seven pounds and a half. The largest female weighed nine pounds and a half, and the small five pounds and three-quarters.

The mothers of these children generally lived in the country, and led active lives. The mother of the smallest boy was sedentary, and had been kept in bed, on the lightest diet, for several of the last weeks of her pregnancy, on account of some fancied danger of uterine hemorrhage. The mother of the largest male child had given birth to two living children previously, and had

had several abortions, at each of which she had flooded fearfully. Consequently, during most of the time in the interim she was very feeble and anæmic. * * *

The child that weighed fifteen pounds, not in my average, was alive after the head passed, but died before the shoulder could be delivered.

Pleuritic Effusion with Acute Mania Cured by Paracentesis Thoracis.—Richard Greene, Senior Assistant Medical Officer, Sussex Lunatic Asylum, Hayward's Heath (Eng.), reports an interesting case. He says, that no operation could have been undertaken under more unfavorable conditions than in the following case, and yet the result was perfectly satisfactory. The patient's disease had been mistaken by his medical attendant: he was exhausted from want of nourishment and from a long railway journey, and he was in a state of raving madness, having no knowledge of his surroundings or of his own weakness. Moreover, having no Bowditch's syringe at hand, I had to use an ordinary trocar and canula, conducting the fluid under water by means of a few feet of india-rubber tubing. I am satisfied, however, that no air entered the pleural cavity.

A. B., aged 28 (No. on Register, 2,228), was admitted into this asylum on the 8th of March, 1873, suffering from acute mania. It was stated by the medical practitioner who certified to his insanity that he was then suffering from pneumonia, but that the thoracic disease had supervened on the insanity, and that they were not related to each other as cause and effect. On admission, mentally he was almost as ill as it was possible for him to have been, and his incoherent ravings were, as is so often the case, divided between perverted religious ideas and the most disgusting obscenities; while, physically, he was found to be in a very exhausted state. His pulse 136, weak and compressible, respirations 33, and temperature in the axilla $100^{\circ}\cdot3$. There was little or no respiratory murmur audible on the right side, but it was intensified on the left, and percussion elicited a dull sound over the whole of the right half of the thorax, which was also bulged slightly. It was at once seen that the case was not pneumonia, but pleurisy with effusion. Alcoholic stimulants were carefully administered, and under these the patient to a

certain extent revived; but it became more and more evident that the only hope of recovery lay in paracentesis thoracis, which I consequently performed a few hours after admission. Four pints of fluid were removed, and the lung shortly began to expand. Six hours' sleep was obtained by the subcutaneous injection of one-sixth of a grain of morphia. The pulse, respirations, and temperature fell gradually till they reached the natural standard, and contemporaneously the mental state improved until reason was quite restored. A course of cod-liver oil and tonics completed the cure, and the patient was discharged on the 31st of May in all respects well and strong. A few weeks ago, I heard from his relatives that he has preserved both his mental and bodily health, and that he is daily employed at his trade.

Such cases as these show the fallacy of regarding insanity purely as a specialty, or of treating it by remedies addressed to the brain only; and they also tend to prove that the mind, so far from being a distinct entity, is indeed "the most dependent of all bodily functions." Here the salvation of a man's reason depended upon the evacuation of a few pints of fluid from his chest.—*The Practitioner*, March, 1874.

The Brain Power of Man.*—Dr. Brown-Sequard delivered a lecture in Washington, D. C., April 22nd,—“one of a series generously provided for by Dr. J. M. Toner for the discovery of new facts in medicine”—in which he discussed the proposition “Have we Two Brains, or only One? and if Two, why not Educate Both?”

Dr. Sequard began by stating that the views of science upon this subject are different from his. The left side of the body is the side affording volition to the brain, while the right side of the brain affords volition to the body. But as we are in the habit of using only one side, we therefore leave out of account one-half of brain matter.

As to intelligence, either side of the brain is competent for full development of the faculties. There are many persons of two minds, because they are never able to make up their minds. There are many cases that show clearly that there are two brains.

*The following synopsis is compiled from the report made in the *National Republican*.—ED.

He had known a boy in London that manifestly had two. He would fall into a comatose state, and suddenly open his eyes brightly, inquiring of his mother why he was not introduced to the gentleman who was present while he was asleep. He knew nothing of what occurred in his sleeping condition, when fully awake; and when in the former condition he knew what had occurred when in the latter. The lecturer had seen three cases of this kind.

As regards faculty of speech, the fact that we have two brains is not so easily proved. The loss of this faculty depends upon disease of the left side of the brain; and this proves that the right side is distinct.

As regards sight, a theory has been put forth that the right side of the base of the brain is the centre of sight. There are three series of facts (but one would be enough) to show that the theory should be rejected. Disease of the brain, where the optic nerve touches, is not sufficient to cause loss of sight. An alteration in any portion of the nervous system, acting upon other parts, can produce disease in that part. Injury to the spinal cord produces loss of sight on either side. Nothing is more common than the loss of sight temporarily in children who suffer from worms. Any injury in one-half of the brain can exist without producing loss of sight. Either half of the brain may, therefore, serve to sustain sight.

Voluntary movements depend upon the action of the body. Yet there are many small muscles not affected in cases of paralysis. There are cases on record which show that the lower lobe of the brain could be destroyed without affecting these voluntary movements. We must, therefore, look on one-half of the brain as being sufficient to sustain voluntary movements on both sides of the body. An irritation in any part of the brain may affect any part of the body, and an irritation in any part of the body can produce paralysis in another part. The irritation could also act upon remote parts. This shows that the power of will does not control the entire action of the body.

The same reasoning applies to sensation. There are thousands of cases affecting the brain that do not affect the feeling. Passing the facts in review, we find vast differences, owing to the fact that one-half the brain was developed for certain things and the other half for other things. As regards writing, the

power is lost more frequently in diseases of the left side of the brain. The right arm is paralyzed by diseases of this side. Many thus diseased cannot write from memory, although they can use their fingers and copy. In those cases it sometimes occurs that persons could not write at all.

The right side of the brain operates upon the limbs in cases of paralysis and other diseases; also upon disturbances in the lungs, liver and other parts. Hysterical and emotional symptoms are more common in cases of disease of the right side of the brain; out of 120 cases of paralysis that came under the lecturer's observation, there were 96 caused by disease of the right side. An alteration of the retina of the eye will come more frequently from diseases of this side of the brain. Out of 69 cases of convulsions of the eyes, 47 were due to diseases of the right side. Death occurs much more frequently by disease of the right side of the brain; and in case where patients do not die, it will produce more extensive and enduring paralysis.

All this shows, not that the two sides of the brain differ originally, but that there are different developments of each. The left side of the brain is much larger than the right side. There was no question that the brain grew. By studying a particular subject, the person becomes more proficient, and the brain is more fully developed.

The left side of the brain predominates in our system. Our being right-handed shows it. There is no population in the world that is not right-handed. Left-handed individuals use the right side of the brain, showing the connection between these things.

There was primitively a difference between the two brains. In children convulsions were sooner developed in the left than in the right side of the brain. This was attributable to excess of blood in the left side. Parrots roosted on the right legs, and their talking power came from the left side of the head.

There are four vital points to be considered: (1) Asphyxia is connected with the left side of the brain in persons that are right-handed, and with the right side in those that are left-handed. (2) Children who are learning to talk, if disease comes in the left side of the brain, learn to talk just as well with the right side of the brain. Though losing half of the brain, they get along just as well. This proved that the right side could be

educated, with the left hand for execution. (4) Four out of every hundred left-handed persons learn to write with the left hand; therefore the left side of brain, even with persons left-handed, could be educated better than the right side. (4) The leg is rarely so much affected by paralysis as the arm.

If the lecturer had established that we had two brains, then they should be developed. If we gave as much attention to the left side of the body as we do to the right side, we would fully develop our two brains. The important point, therefore, would be to make children use both sides of the body—alternately using the right and left arm and the right and left leg equally. There would be no difficulty in thus training children to full development.

Even adults who had lost speech by disease of the left side of the brain could regain the power by cultivating the right side. In gesture, persons who had lost the use of the right arm could be trained to use the left. If children were thus trained, we would have a sturdier and healthier race, both mentally and physically.

New Operation for Cleft Palate.—The *London Lancet* (Feb. 28th.) gives the following minute details of the operation, lately proposed by Sir Wm. Fergusson, for closing cleft in the palate. The first steps are somewhat similar to the old operation—paring the edges of the cleft, and making an incision down to the bone parallel to, and about a quarter of an inch from, the edge of the cleft on either side, the point of the knife being carried back just as far as the junction between the hard and soft palate. Into these incisions a chisel half an inch broad is inserted, and its edge directed against the posterior margin of the hard palate and made to cut from behind forwards, thus partly detaching a slice of bone on each side, with the soft tissues and periosteum attached to their upper and lower surfaces. The result of this is that the sides of the cleft fall easily together, leaving a small aperture through the bone on either side. One, two, or, if the fissure be long, three stitches are passed through the lateral clefts by means of an ordinary aneurism-needle, and thus encircle the detached portions of bone and soft tissue, each suture passing through into the nasal cavity. It should be noted

that there is no tension on the flaps, the threads merely keeping the parts steadily in contact. The amount of pain and constitutional disturbance is much less marked than when the old operation of dissecting up the soft parts from the bone has been resorted to.

From the liability of the flaps to twist in slightly, and from the thinness of the edge, Sir William Fergusson is careful to pare the sides somewhat obliquely, in order to present wider surfaces for adhesion. The sutures, which are kept in much longer than in the ordinary operation, cause no harmful irritation. The lateral clefts become filled up by new bone, which is rapidly thrown out, and tends to keep the parts firmly united in the median line.—*Medical News and Library*, April, 1874.

External Treatment of Varicose Veins.—Dr. Linson, of Verviers says, in the *Tribune Médicale*, that he has for years successfully treated such cases by swathing the leg in flannel compress wet with a solution of chloride of iron (gr. xiv to 3j.), and then applying a roller flannel bandage over it firmly for twenty-four hours. Repeat this daily for a week or two.—*Med. & Surg. Rep.*, April 11th, 1874.

Uses of Chloral.—Dr. W. W. Keen, Philadelphia, has been experimenting with chloral, and reported the results in a paper read before the Pathological Society of Philadelphia, March 12th, which is published in the *Philadelphia Medical Times*.

Anatomical Uses. Among its comparative merits over other articles in common use, he mentions that while the cost for a sufficient quantity for each dissection subject is about the same as for a like quantity of chloride of zinc, or arsenic—about 50 cents—it better preserves the *condition of tissues*. Zinc hardens, discolors and decolorizes tissues to such an extent as to unfit it for demonstrating their normal color and consistence. Though alcohol is better, it also hardens and decolorizes. Arsenic is poisonous, and the tissues become soft and offensive in a little while after its use. Salt and nitre would in a short time. *Chloral* does not change the color, nor affect for at least three months the consistence of tissues. *Subsequent injections into arteries, &c.*, can be made with better effect, since chloral does

not contract the calibre of arteries. Nor does chloral affect the edge or polish of knives, &c. Even toilet pins after three months in a subject were not corroded in the least.

Pathological Uses. For preservation of specimens, Dr. Keen has only used it for five months, but the results have been most satisfactory. He does not think chloral changes chemically within a year. He suggests about gr. v or x to ʒj of the fluid as the proper strength for such preservative effect, and that it is perhaps "better to add it in crystals, for if added in solution, it might change the specific gravity of the fluid, and so affect the integrity of the more delicate morphological elements."

Surgical Uses. "It acts, first, as a complete deodorant within a very short time, by what chemical action, I do not know; secondly, as a stimulant, so that what was a foul, sluggish ulcer, will become, in from two to three days, a fine, red, healthy, granulating sore. But it must not be used too strong, or it may become a decided irritant." Even in some cases, a two per cent. solution (gr. x to fʒj) is too strong. The results in cases, which he details, quickly changed the foul, unhealthy, ill-smelling discharges to healthy looking sores, with excellent yet moderate pus. The discharge was always considerably diminished. "The application seemed rather to change an unhealthy" sore which was stationary, or even enlarging, to a healthy one, in the proper condition for the healing process, which soon began and went steadily forward. In no case was its hypnotic action shown." He has had no opportunity for testing its destructive action upon the specific poisons, as chancre, &c.

The mucous membranes are more sensitive than the skin to its irritant action. It must be tested by experience in each case.

"Dr. Goodell also informs me he has used it considerably of late, and it does admirably as an antiseptic, deodorant, and stimulant."

Resuscitation after Thirteen and Half Minutes Apparent Death.—At a meeting of the College of Physicians and Surgeons (N. Y.), March 11th, Dr. Lewis A. Sayre exhibited a string of beads, one of which he had taken from the trachea of a child, seven years of age, living in New Jersey. On the 11th

of February he removed the bead which had been swallowed four days previously. She had a continuous, anxious cough, and complained of a great deal of pain under the middle of the sternum. Whenever she coughed the bead would pass up and down the trachea, and you could hear it as it struck up against the glottis. She was relieved by tracheotomy, which was performed by making a free incision in the median line and severing the tracheal rings. She coughed out the bead, gave one inspiration, and died. The incision was opened thoroughly, and artificial respiration was established, being kept up thirteen and a half minutes before any voluntary respiratory movements on the part of the patient were observed. Alcohol was injected into the rectum, and the galvanic current into the phrenic nerve. It was nearly half an hour afterward that she finally gave a cough, and a large piece of inspissated mucus appeared in the opening of the larynx which had formed an overcoat to the bead, which was immediately seized and pulled out. I suppose the overcoat fell off from the bead and plugged up the bronchus, which was the cause of the sudden relapse. She immediately rallied, and then had no further trouble.

The point of interest is the fact of respiration being established while the tracheal incision was open; and it is a question whether we might not perform tracheotomy with advantage in cases of drowning and like accidents.—*New York Med. Jour.*, April, 1874.

Apparatus for Treating Lead Palsy.—At a recent meeting of the N. Y. Society of Neurology and Electrology, Dr. John Van Bibber exhibited an apparatus for the treatment of paralysis resulting from lead-poison, consisting of a rubber band around the arm, just above the elbow, another around the hand, being held in its proper place by an extension of the screw between the tendons, and the two connected by a piece of rubber tubing. This acting as an extensor muscle, and the band of the shirt as an annular ligament, enable the patient in a short time to greatly recover the use of his hand.—*N. Y. Med. Jour.*, April, 1874.

The Corpus Luteum of Menstruation, according to a statement of Dr. J. C. Peters, of New York, is much larger than is generally supposed, being nearly $\frac{3}{4}$ ths inches long, and $\frac{1}{2}$ inch broad.

Resuscitation from Chloroform-Narcosis.—(*The New Orleans Med. and Surg. Journal*, Nov., 1873). In the course of an extended experience in the administration of chloroform, it has happened three times to Dr. M. Schuppert that, to all appearances, the narcotized subject died,—that is, respiration ceased, the heart stopped beating, and muscular contractility became extinct. The method he adopted for resuscitating these patients consisted in reversing the body, either by hanging them up by the feet or laying them over a bed or table so that the greater part of the body with the head hung down. In that position artificial respiration was also tried. In one case five minutes elapsed before there was a natural inhalation. All of them recovered. Dr. Schuppert believes that in cases of death from chloroform the primary cause of the cessation of the respiration and circulation rests in anæmia of the brain, and not in impregnation of the blood with carbonic acid.—*New Remedies*, April, 1874.

Obstinate Vomiting of Pregnancy Cured by Enemata of Bromide of Potassium.—Dr. Girabetti has successfully treated the obstinate vomiting of pregnancy by enemata of bromide of potassium given in increasing doses; commencing with 6 grammes (about 92 grains) the first day, 8 grammes the second, and 10 grammes the third; after which the dose is lessened in proportion to the effect produced. In one case the vomitings were arrested by this treatment in three days.—*La Tribune Médicale*, 23rd Nov., 1873, from *Rev. Méd.*—*New Remedies*.

Proceedings of Societies.

MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND.*

The seventy-fifth annual session of this society met in its hall, No. 60, Courtland St., Baltimore, at 12 M., April 14th—Dr. C.

*We desire to return thanks to our Maryland friends who forwarded us Baltimore papers, from which the following analysis is compiled. The report here given is compiled chiefly from the *Baltimore Gazette*.—ED.

H. Ohr (President) in the chair; Dr. W. G. Regester, Secretary.

Reports being in order, that of the Treasurer shows a balance of \$224 in hand. That of the Publication Committee recommends that five hundred copies of the transactions of 1874 be published, instead of two hundred and fifty, as last year. That of the Necrological Committee presented memoirs of Drs. W. H. Baltzell, B. H. D. Bull, J. E. Mitchell, and G. L. Robinson.

The report of the section on Surgery—read by Dr. C. Johnston—refers principally to operative surgery. It dwells at length upon the treatment of cancer, and the advantages of early excision, by which means, life *may* be indefinitely prolonged.

The report of the section on Medicine and Obstetrics—presented by Dr. J. Morris, chairman—deals principally with the effect of alcohol upon the human system. It is claimed that, though it produces stupor, it does not produce convulsions. Tuberculosis is attributed to it as an effect of its improper use. It is one of the most active agents in producing contraction of tissues, and premature death. In those patients using alcohol, it is not assimilated when the breath has an alcoholic factor. The table of Dr. Dickenson, which was read, shows that liquor traders die at an average age of thirty-six years, and toppers at forty-eight years. Surgeon-General McLean, of the British army, is quoted as affirming that spirits are hurtful to marching soldiers. The report recommends abstinence from alcohol, even in cold weather; the experience of the Hudson Bay Company justifies this recommendation. A certain amount of poison is imbibed in each “drink.”

Instances are few in which alcohol cannot be supplanted in treatment of disease. Milk is better in typhoid and other fevers. In the old school, alcohol was given in delirium tremens; but now it is not used; and the patient recovers in one-third the time. Many cases of inebriety are traceable to the prescriptions of physicians. Since such prescriptions are so liable to abuse, the report closes with an injunction to physicians to avoid prescribing ardent spirits whenever practicable.

Dr. N. R. Smith, after a few remarks suggested by the paper, said that he endorsed the report, &c.

The report of the section upon *Materia Medica*—Dr. S. C. Chew, chairman—referred to discoveries and advances in different kinds and forms of medicines. After speaking of the effect of iodide and chloride of iron upon the capillaries and general system, allusion was made to the many tonic elixirs, with the suggestion that they should not be used indiscriminately, as they sometimes contain deleterious compounds. Croton-chloral was mentioned as a safe and reliable addition to therapeutics.

Dr. F. T. Miles, chairman of section on Anatomy, Physiology and Pathology, made an interesting verbal report upon the advances made in these several sciences, which he was requested to prepare in writing and present to the Publication Committee.

The evening session met pursuant to adjournment in the Maryland Inebriate Asylum at 8 P. M.—the President in the chair.

The report of the section upon Meteorology and Medical Topography—Dr. H. J. Penrod, chairmain—details the atmospheric conditions of Baltimore for the past four years. The report was accompanied by appropriate charts—all of which was referred to the Publication Committee.

In response to calls made upon him, Dr. Joseph Parrish made some very interesting remarks upon the treatment of those addicted to the use of opium and liquor, and gave the history of a number of cases that had come under his observation as a specialist.

Dr. James A. Steuart read a paper on drainage, after which the meeting adjourned.

Second Day. April 15th:—An annual tax of \$2 *per capita* was levied for support of library, &c. Several volumes were presented the Faculty, as also Pettigrew's Gallery of Distinguished English Surgeons, by Dr. J. J. Caldwell—all of which donations were received with thanks.

An invitation was received from Dr. J. M. Toner, Washington, D. C., inviting the Faculty to attend a lecture to be delivered by Dr. Brown-Sequard, on the question "Have we Two Brains?"

The report of the Committee on Hall, which was accepted, authorizes the Executive Committee to rent or sell the Hall of the Faculty on Courtland Street.

The report of the section upon Psychology and Medical Jurisprudence was read by Dr. A. B. Arnold, chairman. It reviews at some length the developments of the well-known Wharton trials. • After referring with just regret to the unfortunate irreconcilable differences of opinion among certain of the experts engaged, the report, in justice to Drs. P. C. Williams and S. Chew, exonerates them from any implication, as "they can fairly lay claim to the merit of having recognized the character of the symptoms in these cases."* The report gives a just rebuke to that "class of experts who parade the learned ignorance of 'probabilities and possibilities.' The enlightened and conscientious physician never compromises his profession by indulging in the questionable privilege of presenting crude hypothesis, and mere speculation as matters of fact in medical science." The defective mode of procedure in courts where medical testimony is required, is characterized as "irrational and unscientific in the highest degree." In France, courts are furnished with official reports by a medical commission. A modification of this plan would be recommended were it possible to accomplish anything by doing so. The report also considered the subject of alcoholic intemperance—which tended to show that *total* abstinence need not be insisted on as a matter of public hygiene. Liebig places alcohol among articles of food, though he elsewhere denounces its use.

Under the call for new business, Dr. C. Johnston exhibited an apparatus, invented by Dr. T. W. Simmons, called the "Extensio-Suspensory Apparatus," which, it is claimed, combines the advantages of Dr. N. R. Smith's well known splints for treatment of fractures of the lower extremities.

Dr. E. Lloyd Howard alluded to the appointment of the State Board of Health by the General Assembly, for the collection of vital statistics; and also to Dr. C. W. Chancellor's ordinance presented in the City Council of Baltimore, for the registration of births and deaths by the attending physicians.

*It is the more important to note this, as Dr. Taylor in the last edition of his work on *Medical Jurisprudence* implicates these gentlemen.—Ed.

A discussion ensued upon that portion of the section of Dr. Chancellor's ordinance relating to births. It was stated that the compelling by law of the registration of births would do away with much of the infanticide and illegitimate births which now prevail in the community, and if the father could not be found, the mother would at least be required to register the birth of her child. The section, upon a standing vote, was adopted: yeas 24, nays 17. A resolution that the endorsement of Dr. Chancellor's ordinance before the City Council by the Medical and Chirurgical Faculty, signed by the President and Secretary, be transmitted to that body, was adopted.

The meeting adjourned until 8 P. M.

At the evening session, under the call for new business, Dr. J. J. Chisolm offered his resignation as a member of the Faculty, which was accepted.

The special order of the evening was the annual address by Dr. L. H. Steiner, who selected as his subject, "The Model Physician." The address was faithful in portraiture, and replete with good advice.

Under the call for volunteer papers, Dr. P. C. Williams spoke upon Post-Partum Hemorrhage, which remarks he was requested to reduce to writing for the Publication Committee. Dr. H. R. Noel read a paper upon "Leucocythæmia;" and Dr. J. R. Uhler one upon "Little Children as Aids to Diagnosis and Treatment"—both of which were referred to the Publication Committee. Adjourned.

Third Day. April 16th:—A Committee of five was appointed to revise the Constitution and By-Laws, to report at the next annual session.

Dr. F. Donaldson read a paper upon "Analytical Diagnoses of Diseases of the Heart;" and Dr. McL. Tiffany made some remarks upon "Multiple Fracture," which he was requested to reduce to writing. Both papers are referred to the Publication Committee.

Dr. C. W. Chancellor read a paper on "Reform in Medical Education," in which the necessity for a radical change in the present system was deemed necessary. A better preliminary education is among the great wants of the day.

On motion of Dr. E. L. Howard, a Committee of five was appointed to take the subject under consideration, and report with recommendations at the next session.

Dr. J. S. Conrad read a paper on "Small-pox," which was properly referred.

Dr. C. H. Jones offered the following (which at the evening session was amended and adopted):

Resolved, That the publication and distribution in pamphlet form or otherwise of any matter read before a medical association, unless so ordered for publication and distribution, be considered unprofessional, and sufficient cause for expulsion from any such medical organization.*

At the evening session, an interesting paper on Electro-Therapeutics, by Dr. J. J. Caldwell, was read, and referred to the Publication Committee. Dr. Caldwell also exhibited several electrical machines, and explained their action.

The election of officers being in order, Dr. Henry M. Wilson was elected President; Drs. F. T. Miles, J. E. Steuart, P. A. O'Donnell, Vice-Presidents; W. G. Register, Recording Secretary; G. L. Tanneyhill, Asst. Recording Secretary; L. Elliott, Corresponding Secretary; J. Gilman, Treasurer.

After the usual vote of thanks, &c., the session adjourned *sine die*.

* We have some curiosity to know what that amendment was; for without some *very great modification* the adoption of the resolution would have been short-sighted in policy, and opposed to the general spirit of the Code. Existing laws already reach those who make illegitimate use of printers' ink. "*Unprofessional and sufficient cause for expulsion*" indeed! just because a member may publish a paper "read before a medical association, unless so ordered for publication!" Suppose a member prefers to publish in "*pamphlet form or otherwise*" some cases which he does not care to report to a medical association, how will the law reach *him*? Suppose a valuable paper is presented at a local association, and yet fails to impress the minds of members present as such; or suppose a want of zeal in medical matters generally exists among the members of such a body, or want of funds in the treasury forbids the order being issued for the publication, even though the author himself might be willing to bear the expense, he would yet feel some delicacy in making the proper motion for his own production. A practical consequence of such legislation would be that practitioners of one section would not be advised of what was transpiring in other sections. It would be as reasonable for medical societies to organize themselves into secret clubs, sit with closed doors and down-shut windows, and prohibit the report of proceedings, &c., in the daily press. Will the next move be to suppress the publication of transactions of State Societies, and even of the American Medical Association, since some curious non-professional eye might see in these volumes, lying upon a doctor's office-table, that Dr. — had performed some truly wonderful operation?—ED.

RICHMOND ACADEMY OF MEDICINE.

Meeting April 2nd.—The President, Dr. J. S. Wellford, in the chair. Minutes recorded by the Secretary, Dr. H. H. Levy.

DR. GEORGE ROSS reported having recently been called to a young man (æt. 20, previously healthy, though had twice been affected with congestive chills) whom he found with cold extremities, unconscious, &c. In a short while after the application of mustard, the patient languidly opened his eyes, belched and yawned. Believing it to be a case of nervous dyspepsia, a mixture containing valerianate of ammonia and aromatic spirits of ammonia was administered, and the patient rallied. Two days later, however, he experienced a sensation as if a lump of ice was in the epigastrium, from which point there radiated sensations of cold currents. On the next day the right side of the body was found paralyzed, and on the following day the paralysis of the right side had ceased and the left was similarly affected. During the existence of the paralysis, there was tenderness along the spine and over the epigastrium and liver. Sleeplessness was also a marked symptom. Quinia and assafoetida were freely given, and the patient made a good recovery, though he lost from ten to fifteen pounds in weight.

DR. I. H. WHITE, in relation to the case just reported, remarked upon what may be termed the *general* and *special* actions of malaria on man; the former impressing the whole body, while the latter affects limited portions, giving rise to neuralgias, or even to local anæmia. He believes anæmia of the brain, occasioned by malaria, was the cause of the paralysis in the case just reported. He had seen a similar case cured by diffusible stimulants. As to the sleeplessness, a glass of ale or porter, taken at bed-time, would generally insure a good night's rest in such cases.

DR. WHITE also exhibited the dried pathological specimen of a large ovarian cyst, to which a few smaller cysts were attached. In one of the smaller cysts, two teeth and the rudiments of a third, as well as some hairs were imbedded in a yellowish, butter-like substance. Nothing of peculiar interest was attached to the operation by which the tumor had been removed. The pedicle was ligated, and drainage effected through Douglass' *cul de sac*. The patient made a good recovery.

DR. WHITE also reported the case of a woman affected with

ovarian cyst, who was tapped, and menstruation occurred, which had not taken place before for many months. After three menstrual periods she became pregnant, when two tumors, with a marked sulcus between, could be distinguished. The uterus was pushed to one side. She miscarried during the sixth month, after which the ovarian cyst occupied the whole pelvic cavity. It will soon be necessary to tap her again.

The remainder of the night's session was occupied with questions of ethics of local interest.

Meeting April 16th—the President in the chair. Minutes reported by the Secretary.

DR. L. S. JOYNES, chairman, presented the Report of the Committee on Public Health (in Richmond), for March.* During the month there was a trifling increase over the number of deaths in February; but the difference in the length of the two months will nearly account for the difference in the aggregate mortality. Though the population of the city has probably increased 2,900 during the year, there were thirty-nine deaths less during March, 1874, than during the same month 1873. In March, 1874, there was a general falling off in the mortality from the zymotic diseases, with the exception of whooping-cough and the malarial fevers.

As cases of special interest, the committee particularize one reported by Dr. Hunter McGuire, as follows: "One case of *mania à potu*, treated during the stage of violent mania with \mathfrak{zss} doses of tincture of digitalis every third hour until \mathfrak{zij} had been taken, without producing sleep or lessening delirium. The digitalis produced profuse sweating—no diuretic effect. Chloral and the bromide of potassium afterwards given without avail. When the fifth night without sleep arrived, gave sulphate of morphia, gr. ss under the skin. Profound sleep in twenty minutes—lasting twelve hours—patient waking up sane and convalescent."

DR. J. G. CABELL alluded to the great number of cases of diseases of miasmatic origin occurring in this city, which he thinks due in great measure to want of proper drainage and attention to hygiene in general.

*See Virginia Mortuary Statistics, page 128.

A cursory discussion ensued, participated in by several members, on the prevalence of congestive diseases during the month of March, which was generally thought to be of miasmatic origin, and several cases reported in illustration.

Under the call for Reports of Cases,

DR. J. N. UPSHUR reported the case of a child twenty months old, who had fallen down stairs, striking on the left shoulder, producing "green-stick" fracture of the clavicle about an inch from the acromial articulation. The diagnosis was easy. Chloroform was administered, the fracture reduced, and Sayre's adhesive plaster apparatus applied to procure rest of the part. He mentions the case because only a few authors refer to this particular kind of fracture.

DR. W. W. PARKER had recently seen a previously healthy child, two and a half years old, suffering with fever, but could see no special need for medicine. The child became extremely cross and peevish—keeping its mother up for ten nights in succession. After a couple of weeks, cincho-quinine was administered which caused copious vomiting of mucus, and, in a few hours, the child became quiet, fretfulness disappeared, and the child steadily recovered.

DR. F. B. WATKINS believes that an accumulation of mucus in the stomach is often the cause of fever, and ought, therefore, to be promptly removed.

DR. L. S. JOYNES reported a case of congenital inguinal hernia in a female infant, aged four weeks. The tumor made its appearance in the right labial region after spasmodic coughing; was not painful, and disappeared when the child was asleep. As he found that the gentlest pressure returned the intestine into the abdomen, a truss was not applied, hoping that the recuperative power of the child would be sufficient to prevent further trouble.

DR. JOYNES also exhibited a sample of camphor-chloral, a liquid which is obtained by mixing equal quantities, by weight, of gum camphor and chloral hydrate. In explanation of the chemical action of these agents upon each other, which results in the clear liquid exhibited, the Doctor read the following letter from Mr. J. M. Willis, Pharmacist, &c., of this city: "Cam-

phor exists primarily as an oxidized hydro-carbon, expressed symbolically as $C_{20}H_{32}O$. In this condition, it is liquid. By exposure, it absorbs an additional atom of oxygen, and is changed, thus: $C_{20}H_{32}O + O = 2C_{10}H_{16}O$. This latter is commercial or concrete camphor.

"By the admixture of an equal weight of chloral-hydrate, concrete camphor is gradually deoxidized, at least to the extent of the absorption, and changed into its original condition—that of an oxidized hydro-carbon, in which the chloral hydrate is dissolved. Hence the mixture is simply a solution of chloral hydrate in oil of camphor, which theory is sustained by the fact of the hydro-carbons being good solvents for chloral hydrate, to-wit: oil of cajeput; of rosemary; of peppermint; of sassafras; of lavender, and others of this class."

Dr. Joynes after reading the above communication, remarked, that these oils being themselves good applications in neuralgic affections, the solution of chloral in them may be very good.

DR. W. AUGUSTAS LEE reported the case of a strong, healthy laborer, aged 56 years, who, about nine years ago, had an abscess about the urethra, from which time he has had phymosis, and has also had six or seven other abscesses at various intervals during this period. The patient was first seen December 23rd, 1873, when the parts were much swollen, hard, tense and glistening; the patient suffered intensely, and was able to pass only a small quantity of urine at a time. Ordered the parts to be painted with solution of nitrate of silver (gr. x to ʒj), and directed the patient to take twenty drops of the following mixture:

R Tinct. ferri muriat. . . . ʒss.
 Quin. sulphat. . . . gr. xxv.—M.

Ordered Hoffman's anodyne at night, and a purge of calomel and soda. He was better the next day, passed water freely; and on December 28th, he was walking out. The Doctor was recalled February 15th, (1874,) when he was again unable to pass water, but was relieved by a hot hip-bath. February 19th, was again affected with retention, and relieved by hot hip-bath; but preceding the urinary discharge, he voided nearly a teacupful of pus. Being called hastily to him about 12 M., March 1st, the

Doctor found him in such a condition as to determine him to perform circumcision at once. After the operation (in which Dr. Tompkins assisted—patient being anæsthetized by chloroform), a No. 6 catheter could not be passed beyond the navicular fossa. Ordered hot hip-bath; and about 3 P. M., succeeded in passing No. 2 silver catheter through the spongy portion of the urethra. On withdrawing the instrument, it was found choked with pus, and a few drops of urine dribbled away. By manipulation, about a gill and a half of urine and pus was pressed out. At 7 P. M., the patient was asleep, in a profuse perspiration, and had passed unconsciously about a half-pint of urine. Having neglected to take the medicine ordered, he was directed to take regularly 25 drops of the iron mixture every four hours, and cathartic pills at bed-time. At the next morning visit, the patient was quite cheerful, but had again passed his urine while asleep. Diluents were ordered. At the afternoon visit, the patient was decidedly worse, with symptoms of uræmic poisoning; suffering intense pain in the hypogastric region. An unsuccessful effort was made to pass a catheter—the entire urethra seemed obliterated. Several attempts were made until after 10 P. M. to introduce the catheter, but with futile result, when symptoms of rupture of the bladder set in. He died the next day. An autopsy the following day revealed that the posterior wall of the bladder, to the right of the median line was ruptured sufficiently to allow the passage of the index and middle fingers.

DR. J. N. UPSHUR read a paper on urethral stricture. After which the meeting adjourned.

The Abingdon Academy of Medicine meets the first Monday night in each month, in Abingdon, Va.

At the annual meeting held April 6th, Dr. Wm. White, Vice-President in the chair, the following gentlemen were elected officers for the ensuing year: Drs. E. M. Campbell, President; J. S. Apperson, Vice-President; W. F. Barr, Corresponding Secretary; R. J. Preston, Recording Secretary; H. M. Grant, Treasurer.

Dr. John G. Pepper was elected a fellow of the Academy.

Drs. J. B. McCaw, F. D. Cunningham Richmond, Va.; T. S. Powell, Atlanta, Ga.; and Washington L. Atlee, Philadelphia, Pa., were elected Honorary Fellows.

The delegates to the American Medical Association are Drs. Wm. White and J. S. Apperson,

Dr. J. Preston read an interesting essay on "Hygiene and Prophylactic Medicine."

It being announced that, since the last meeting, Dr. A. R. Preston (President), had died, a committee was appointed (Drs. E. M. Campbell and W. F. Barr) to draft suitable resolutions to be placed on record. The following, reported by the committee, were unanimously adopted:

WHEREAS, It has been the will of Almighty God to call from our midst our co-laborer, Dr. A. R. PRESTON, who, at the time of his death, was President of our Academy of Medicine, and the oldest physician of our association; a physician noted for his skill, remarkable for his kindness and gentleness in the sick-room, distinguished for his charity to the poor, and his gentlemanly bearing in all the walks of life; while he was an earnest and energetic practitioner, until the infirmities of age caused him, in a measure, to withdraw from the active pursuit of his profession, he scorned any undue advantage to forward him in his vocation; always kind and courteous to his juniors, frank and open with his compeers, he died rich with honors as well as ripe in years, having been elected by his fellow-citizens to various positions of honor and trust, Therefore,

Resolved, That in the death of our associate our association has lost its oldest and one of its most esteemed members, and the community a valuable citizen.

Resolved, That while bowing in humble submission to the will of our Master, we deeply deplore the loss of our associate and friend.

Resolved, That a copy of these resolutions be sent to his family, and that they be entered on the record of the Abingdon Academy of Medicine.

Resolved, That a copy of this preamble and these resolutions be published in the *Virginia Medical Monthly* and the *Abingdon Virginian*.

The Society then adjourned.

W. F. BARR, Cor. Secretary.

Abingdon, Va., April, 1874.

Book Notices, &c.

Clinical Reports from Private Practice. BY JOHN HERBERT CLAIBORNE, A. M., M. D. One of the Vice-Presidents of the Medical Society of Virginia; Lately Surgeon in the Provisional Army of the Confederate States; and Executive Officer in charge of General Military Hospitals at Petersburg. Petersburg: Jos. Van Holt Nash, Publisher, 1873. pp. 424. 8vo. Cloth. Price \$3.50.

It is such a rare occurrence for a medical book to be written by a Virginian, or indeed by one in any portion of the Southern country, that when such a one makes its appearance it produces something of a sensation amongst the members of the profession.

In these days of *deference to authority*, when so many of our medical men are prone to submit themselves wholly to the guidance of others, who are allowed to do their thinking for them, it is quite refreshing to find a man who, like the author of "*Clinical Reports from Private Practice*," has the independence to "*think his own thoughts*," and the manliness to promulgate his own views.

Whilst the positions assumed by such a one should be investigated with freedom, himself should neither be judged with harshness nor criticized with severity.

We know that, as the world goes, envy and jealousy may be disposed to sneer at an excellence or an accomplishment to which they are conscious they can assert no claims; but we have too high an appreciation of the character of the *medical* faculty, to suppose that any of them are obnoxious to this imputation.

They will rather hail with pleasure this work of a brother practitioner, as the harbinger and the promise of a better time for the medical literature of the South.

After what we have said of the tendency of the times, in reference to a slavish submission of the intellect and judgment to the guidance of others, it will not be expected that we shall stultify ourself by advising any reader of this or any other book, to take its recommendations without duly examining them for himself.

"Were he thus to
Resign the right of thought,"

he would give proof of his incompetency to deal with the impor-

tant subjects which are daily submitted to his consideration—subjects which require the exercise of the highest powers of the mind, since they involve the health and the lives of their fellow-men. On the contrary, we advise the closest scrutiny into every principle discussed and every position assumed, in this and every other treatise which may come under his examination; only let this scrutiny be fairly made, and the judgment that may be thus formed, be charitably expressed.

It is in this spirit that we venture to differ from Dr. Claiborne, in some of his views as to the character, and in his recommendations as to the proper treatment of one, at least, of the diseases of which he treats in the volume under notice. Whilst we say this, it gives us pleasure to declare that, in our judgment, he has given to the profession a large fund of practical information, which, to the young and inexperienced members of it particularly, will, if properly used, prove of great value. We commend these “Clinical Reports from Private Practice” therefore, to their favorable consideration, as coming from one who is fully qualified, by natural endowments, by cultivation and by long and close observation at the bed-side of the sick and suffering, to instruct those of his professional brethren who have been less favored in these respects than he.

Let us say then, in kindness as well as in candor, that we dissent from Dr. Claiborne in his views of the character and the treatment of “*delirium tremens*.” Differing as to the former, we could not be expected to agree with him as to the latter, since the *practice* should always be conformable with the *diagnosis*.

Dr. Claiborne thinks that this disease “is not, indeed, ordinarily one of debility, or *even of depression*, but of excitement and power. It has not,” he says, “been the strong man bound but the strong man free and tumultuous, and who required cords or restraints.” He further says that he has not seen in a single case marked symptoms of adynamia. With this view of the nature of the disease, he, of course, recommends the sudden discontinuance of all stimulants, and the exhibition of purgatives, particularly of calomel.

Now, according to our observation of such cases, and it has not been very limited, the condition of the brain is very similar to that of the same organ in the delirium of *typhus* and *typhoid fevers*, which we regard as one of *depression* and *debility*, or, as

has been said by a distinguished writer on the subject, of "irritability and exhaustion," to be more surely and more promptly relieved by *the judicious use* of stimulants and tonics, than by any other course of treatment; the action of this class of remedies being, as we all know, to send the vital fluid, with accumulated force, to the organ affected, thus relieving it of the atony which, according to our view, gives rise to the distressing symptoms by which the sufferer is overwhelmed.

We concur with Dr. Claiborne, however, when he recommends the free administration of calomel, in those cases where the liver is half-cooked by the fiery potations by which that condition of the organ has been brought about; *not for the purpose of depletion*, but because it is peremptorily required to unlock this great depurator of the venous system, and to restore it to the healthy exercise of its peculiar and important functions. Even here it is important *that we carefully guard against its too free action on the bowels*, which would increase the very condition of the brain that it should be the object of the physician to prevent. To effect this, opium should be combined with the calomel, or, which would be better still, laudanum should be freely administered *per anum*.

In those cases of extreme depression of the vital force which are not unfrequently met with, we know of no stimulant equal to the *carbonate of ammonia*, in the form of "*the volatile julep*," to which we would agree with Dr. Claiborne in adding "nutritious broths and teas, with soft-boiled eggs, milk, oysters, and other nourishment of that nature; indeed, the patient should be well plied with the most digestible and easily assimilated of the solid nutritive aliments."

To quiet the *nervous agitation* which usually prevails in such cases, we prefer *chloral* to *any of the preparations of opium*; thus venturing to differ again from the much respected and distinguished author of the book under review. The chloral, in controlling doses, "at night, and bromide of potassium, in twenty grain doses, repeated *pro re nata* during the day, offers a happy combination."

Dr. Claiborne speaks of calomel as "a sedative and tranquilizing agent in its primary action upon the stomach and bowels." We think the effect of that agent is dependent entirely on the quantity in which it is administered. In small doses, frequently

repeated, we regard calomel as one of the most irritating articles to the stomach and bowels that can be given; *whilst it is only in large and commanding doses, that it acts as a sedative.*

We dismiss the author and his book, with the expression of our cordial approval of his efforts thus to contribute from his extensive observation to the medical literature of our beloved State, and of our conviction that he has succeeded in giving to his medical brethren a work from which they may derive very important help in the prosecution of their professional labors.

We trust that Dr. Claiborne will continue the work which he has so well begun, and that we shall have, before long, a second volume from his polished and ready pen.

We cannot close without congratulating the Doctor and his publisher on the very handsome style in which the book has been gotten up. With the exception of many gross typographical errors, *for which there can be no excuse*, since they do such great injustice to the author, and might have been so easily avoided, it is highly creditable to Mr. Nash, who has thus shown what can be done in Petersburg, in the way of book-printing, binding, and lettering. Such skill deserves to be encouraged.

THOMAS P. ATKINSON, M. D.

Mattoax, Amelia Co., Va.

Annual Report of the Supervising Surgeon of the Marine Hospital Service of the U. S., for the Fiscal Year 1873, JOHN M. WOODWORTH, M.D. Washington: Government Printing Office, 1873. pp. 155. 8vo. From John M. Woodworth, M.D.

The Marine Hospital Service was established by Congress in 1798. By an act of 1870, it was reorganized, and the incumbent Supervising Surgeon placed in charge. Judging from the Report before us, his duties have been most onerous; but they have been faithfully performed. The Service is maintained, for the most part, by a tax levied upon officers and seamen of the United States employed in foreign or coasting trade, and also upon foreign seamen who avail themselves of the Hospital benefits.

As points of medical interest, we are informed that this "Service" was the first organization in this country to adopt the "Provisional Nomenclature of the Royal College of Physicians."

During the fiscal year, of 13,529 seamen furnished medical aid, 12,697 were maintained in hospitals—3,969 in the Eastern and Middle States, 3,775 in the Southern States, 205 in Washington and Alaska Territories, and the remainder in the Western States.

By far the most frequent sickness was intermittent fever—there being 1,653 cases, and 16 deaths. The largest number of cases in any one State (187) occurred in Massachusetts. The most frequent cause of death was variola (131), of which there were 286 cases, while of variola modificata, there were 7 cases, and 5 deaths. There were also 74 deaths from consumption.

To the Statistical Report is attached an Appendix containing several very interesting papers—two of which on *Yellow Fever* have been received in separate pamphlet form, and will be noticed below. Of the remaining papers, the one on *Hospitals and Hospital Construction*, by Dr. Woodworth, is the most interesting and important. In general terms, it recommends the "Pavilion Plan," presenting the strong arguments of a lessened death rate, because of better sanitary conditions, and lessened expense.

Appendix D is the report of a *Case of Double Diaphragmatic Rupture and Hernia*, by Thomas T. Minor, M.D., Surgeon, &c., Port Townsend, W. T., to which Dr. Woodworth adds some remarks, from which "it seems clear that hernia of the most astounding proportions may exist for many years without seriously affecting the patient's health, or even his usefulness within certain limits, so long as strangulation, primarily, and such diseases as involve the respiratory and digestive organs, be averted." He further states: "Among the more prominent physical signs of a protrusion of the abdominal viscera into the thoracic cavity, are (1) cardiac palpitation to the right of its normal location; (2) thoracic dullness or resonance in unusual regions on percussion; (3) the absence of respiratory murmur, and the presence of borborygmi in the chest; (4) prominence and immobility of the affected side of the thorax." According to Dr. Bowditch, the existence of this form of hernia has been diagnosed only twice before death—once by Mr. Lawrence, and once by himself.

Dr. C. N. Ellinworth, stationed at San Francisco, adds a pa-

per on Urethral Stricture, with the history of several cases—some treated by divulsion.

Dr. Heber Smith adds a paper on "The Sailor and the Service at the Port of New York; and the Report closes with a paper by Dr. Orasmus Smith, stationed at New Orleans, on the "River-Boatmen of the Lower Mississippi."

Natural History of Yellow Fever in the United States (with chart). By J. M. TONER, M. D., President American Medical Association, &c., Washington. Pamphlet.

This is a most valuable compilation—all that is claimed for it by the author. We wish a copy of it could be placed in the hands of all practitioners who reside in sections prone to the disease.

We must satisfy ourselves, however, with a few quotations:

"The influence, upon localities of elevation above the sea level, with the exemption from yellow fever they seem thence to possess, is the view" says Dr. Toner, "we here wish to call to the attention of sanitarians, and of the profession." "A square formed by the 45th and the 100th degrees of longitude, and the 35th N. and the 5th S. latitude, will include the favorite region of this disease."

"It may prevail upon the sea-coast in any locality * * * where malarial fevers prevail, and the daily average of the thermometer is over 75° or 80°, with a high dew point for weeks or months together."

"There are, no doubt, other climatic conditions essential to its origin, if not to its propagation and spread. Once the disease has become epidemic in a place, it can exist at a much lower average daily range of the thermometer than seems to be required for its development. It is, however, always controlled in its severity, and checked in its spread, or entirely arrested by storms, heavy rains, and most effectually by frost." "Again, extreme heat and dryness stop the epidemic."

"Yellow fever does not prevail in the East Indies, nor in China." "It is eminently a disease of large cities," and along river courses. It appears coincidently with bilious intermitents, "and the first cases are said always to occur near the water in the lowest and most insalubrious places." "Its epidemical limits

coincide with the range of the growth of the live oak, the cypress, and the long mosses."

"The disease has, in the United States, never, in an epidemic form, reached an elevation of five hundred feet above sea level." Fort Smith, in Arkansas, four hundred and sixty feet above the sea, is the highest point at which it has been epidemic. The cases reported to have occurred at Winchester, Va., seven hundred feet above the sea, in 1802, are not well authenticated.

The paper closes with a most valuable table of *localities* (in the U. S.) *where the yellow fever has appeared since 1668, with their elevations above sea level.*

To this paper is appended a report on the *Yellow Fever Epidemic of 1873*, compiled by Dr. Woodworth from every available trustworthy source at his command.

Reports of Cases Treated by Electricity. By J. J. CALDWELL, M.D.

A Review of the Recent Researches in the Pathology and Treatment of Cancer. By J. J. CALDWELL, M.D., Baltimore.

The Pathology of Club-foot and Electro-Massage and Mechanical Treatment of the Same. Read before the Baltimore Medical Association. By J. J. CALDWELL, M.D.

These are pamphlets—the first being a reprint from the Transactions of the Medical and Chirurgical Faculty of the State of Maryland, April, 1873—to which are added some remarks on *Electro-Medicine and Electro-Surgery*; the second, a paper read before the Medical and Surgical Society of Baltimore, February, 1874. There are some points in each of these papers that would call for further remark had we the space. We may add, however, that the results the Doctor has obtained from the application of electrolysis in cancerous affections, add to the value of former reports on this subject from various authorities, and hold out a hope of *relief*, at least, to the unfortunate sufferers.

In the paper on Club-foot, &c., a case of cavo-varus (or twisted-arched club-foot) is reported, in which Galvanic and Faradic currents were applied on alternate days; and the limbs shampooed or *massaged* (from Arabic *Massa*, to knead), which treatment was used by Dr. Metzger, of Bonn, with remarkable

success in joint diseases. The case reported by Dr. Caldwell was greatly benefited, and he was encouraged to hope, at the time of making the report, that she would entirely recover. Phosphated oils were being daily rubbed on the parts affected. The mechanical treatment consisted in the use of a shoe—a modification of McLean's apparatus.

The Sanitarian—an interesting and valuable journal—commences its second volume (April No.) with an enlarged page, and closely printed—*solid*, as the printers say. The omission of leads was done at the suggestion of Dr. Noyes. But whatever he may say to the contrary (while we have in general the highest respect for his opinions in ophthalmological questions), we can but express regret that his suggestion has been adopted. It absolutely *pains* our eyes to read much of unleaded matter, and such is the experience of those of our friends who have much reading to do.

We are requested to state that the office of publication has been removed to No. 224, Broadway, opposite the Post-office, New York.

Editorial.

VIRGINIA STATE BOARD OF HEALTH.

It was our hope to have been able to announce in this issue that the Legislature had made an appropriation for the support of this Board. The appropriation bill did pass the Senate by a vote of 26 to 6. On going to the House of Delegates, it was unanimously recommended by the Committee; but there was no opportunity of presenting it until the last night of the session (April 29th), when it received 49 votes for, and 27 against it. While it received a very decided majority vote, it was defeated for want of the required two-thirds (67) vote. The failure of the bill is not regarded as a total defeat; on the contrary, its friends look upon the vote as very encouraging, and as being almost surely indicative of its passage at the next session. Many of the known supporters of the measure were not in the

hall at the moment the bill was called up. Others failed to vote at all, not knowing, in the haste of the moment, what bill was before the house. For these reasons, a motion for reconsideration was carried, when, on motion, it was laid on the table, friends seeing that there were scarcely more than two-thirds of the members present.

What will be the action of the Board, we cannot say. But should its present organization be continued, it would be unreasonable for the people or the profession yet to look for any special effort on its part which would require expenditure of money or time.

It is but right that we should express appreciation of, and return thanks for the efforts made by the friends of the measure to secure the adoption of the bill proposing an appropriation. And to none is the profession more indebted for unabated zeal and energy in this direction than to the Senator from Isle of Wight county, Dr. J. W. Lawson. To make special reference to other friends of the bill would be, in general, to individualize the best talent of the Legislature just adjourned.

A Convention of the Ex-Confederate Surgeons will be held Wednesday, May 20th, in Atlanta, Georgia. Being heartily in sympathy with the move, we take great pleasure in publishing in full the call issued by the late Surgeon-General C. S. A. in connection with many other eminent officials.

To the Surgeons, Field and Hospital, of the Armies of the Late Confederate States:

For the advancement of science—to rescue from oblivion all the important medical and surgical facts developed within the armies of the Confederate States during the late war—it has been determined to call a Convention of the “Confederate Surgeons” (field and hospital), to meet in Atlanta, Ga., May 20, 1874.

Immediate action is considered absolutely necessary. Since the war many of the most talented of the “medical staff” have died; yearly others are added to the list, and their valuable medical and surgical experience entirely lost to the profession.

For the success of this great Scientific and Historical Association, it is earnestly recommended that the ex-Confederate sur-

geons of each of the Southern States at once take such steps as will secure a large delegation.

The co-operation of the Medical staff of the late Confederate Navy is respectfully solicited.

Besides the contributions to science, the social features of this organization, the revival of old army associations will be of no secondary interest.

The Railways of the South, with usual courtesy, will no doubt grant Excursion Tickets for this most important occasion.

(Signed) S. P. MOORE, Surgeon-General C. S. A.; HUNTER MCGUIRE, Medical Director Jackson's Army; S. H. STOUT, Medical Director of Hospitals, Army of Tennessee; and many others.

At the late session of the Medical Association of Georgia, in Thomasville, the Committee appointed (Drs. J. M. Boring, T. S. Hopkins, and G. W. Holmes) to report on that portion of the President's address relating to the call for the Convention, presented the following resolution, which was unanimously adopted:

Resolved, That this Association does heartily endorse the call, and recommends that notice of the call for a meeting in Atlanta on the 20th of May, *proximo*, through the medical periodicals and newspapers, be properly made.

At a meeting of the Physicians of Atlanta, held March 28th (Dr. J. P. Logan in the chair), the following resolution was adopted:

Resolved, That W. F. Westmoreland, J. J. Knott, V. H. Taliaferro, Chas. Pinckney, and E. A. Flewellen be appointed a Committee of Arrangements to prepare for the Convention of Confederate States' Surgeons, to assemble at Atlanta on May 20th, and to inform the Surgeons whose names are attached to the call, of their action.

This move we regard a most commendable one, having for its grand object the perpetuation in permanent and accessible form the unrecorded experience of so many whose observations will be of value to Science, "advancing thereby the interests of humanity, and contributing important facts to the Southern Historical Association."

We trust that the Convention will be largely attended, and that those who may find it out of their power to attend, will at once prepare suitable reports of such facts in their knowledge as would probably increase the general fund of information, and forward such reports to the session.

CORRECTIONS.

In the report of the Proceedings of the Richmond Academy of Medicine, made in our last issue (p. 58), while Dr. J. G. Cabell suggested that all culverts should be well cemented, yet to relieve the soil from saturation, he recommended that *open tiles* should be placed by the side of the culverts.

We regret also that in revising the proof-sheets of the first No., we failed to note the error in the advertisement of Messrs. Meade & Baker, to be found on the second cover page. The No. of this excellent house is 919 Main street.

Notes, Miscellany. &c.

A Conference of the State Boards of Health will be held at the Hall of the Young Men's Christian Association (corner Fourth Avenue and 23d Street) in New York about the 20th of May, in connection with the general meeting of the American Social Science Association. Boards of Health in the larger cities are invited to take part in this Conference. Those invited are requested to inform the General Secretary of the Association (F. B. Sanborn, Esq., No. 5 Pemberton Square, Boston, Mass.), whether or not there is any subject which they think should be specially considered at that time. The length of the session is fixed at four days.

The Medical Society of the State of North Carolina will assemble (21st Annual Session) in Charlotte on Tuesday, May 19th. We are glad to be able to announce that the Piedmont Air Line R. R. Company, with its accustomed courtesy, will grant the usual reduction of fare from Richmond, Va. We trust that there will be a large attendance, and an interesting session. We hear that a majority at least of the fraternal delegation of the Medical Society of Virginia will be present.

An International Sanitary Congress.—The Foreign Minister of Austro-Hungary is making preparations for an international congress on sanitary matters and quarantine, to which representatives of all nations will be invited.—*N. Y. Med. Jour.*, April, 1874.

Virginia Mortuary Statistics for March, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Presidents of Boards		Dr. J. G. Cabell.				Dr J B Whitehead				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		32	28	45	32	5	12	12	11	3	11	11	11
Number still born.....		5		11		Color not given, 2				-		4	
AGES. Ages unknown not calculated.	Under 1 year.....	12		15		Color not given, 8				Color not given, 8			
	“ 3 years.....	5		10		“ “ “ 3				“ “ “ “			
	“ 10 “.....	3		12		“ “ “ 0				“ “ “ “			
	“ 20 “.....	1		5		“ “ “ 1				“ “ “ “			
	“ 30 “.....	7		9		“ “ “ 7				“ “ “ “			
	“ 50 “.....	11		12		“ “ “ 5				“ “ “ “			
	“ 70 “.....	13		10		“ “ “ 11				“ “ “ “			
	“ 80 “.....	5		3		“ “ “ 3				“ “ “ “			
	“ 100 “.....	1		1		“ “ “ 1				“ “ “ “			
		Over 100 “.....		“ “ “ “				“ “ “ “		
Most frequent Causes of Death.	Accidents, Suicides, &c.....	3		3		.....		1		Color not given, -			
	Apoplexy.....	1		.....		.....		1		“ “ “ “			
	Atrophy.....	.....		3		.....		.....		“ “ “ “
	Bronchitis.....	4		1		1		2		“ “ “ “			
	Cancer.....	2		.....		1		.....		“ “ “ “		
	Cerebritis.....	.....		2		1		.....		“ “ “ “		
	Congestion of Brain.....	2		1		.....		.....		“ “ “ “
	“ “ Lung.....	1		.....		.....		.....		“ “ “ “
	Consumption.....	10		13		5		4		7			
	Convulsions.....	.....		1		.....		1		Color not given, 2			
	Cystitis.....	.....		1		.....		1		“ “ “ “			
	Debility.....	.....		4		.....		.....		“ “ “ “
	Diarrhea.....	2		.....		.....		.....		“ “ “ “
	Dropsy.....	.....		1		.....		1		“ “ “ “			
	Fever, Congestive.....	1		4		.....		.....		“ “ “ “
	“ Typhoid.....	.....		2		1		.....		“ “ “ “		
	Heart Diseases.....	4		4		1		2		“ “ “ “			
	Hydrocephalus.....	2		.....		.....		.....		“ “ “ “
	Inanition.....	2		.....		.....		1		“ “ “ “			
	Meningitis.....	1		1		.....		1		“ “ “ “			
	Old Age.....	2		2		1		.....		“ “ “ “		
	Pneumonia.....	5		12		3		3		“ “ “ “			
	Rheumatism.....	1		1		.....		.....		“ “ “ “
	Scrofula.....	.....		1		.....		.....		“ “ “ “
	Syphilis.....	.....		2		.....		.....		“ “ “ “
	Trismus Neonatorum.....	1		1		1		.....		“ “ “ “		
	Whooping Cough.....	5		4		.....		.....		“ “ “ “
		Census taken in February, 1874.				Population is estimated.				Population is estimated.			

The sanitary condition of each city is good.

VIRGINIA MEDICAL MONTHLY.

VOL I.

RICHMOND, JUNE, 1874.

No. 3.

Original Communications.

ART. I.—*Curiosities of Medical History—The Paris Pharmacopœia of 1758 and its Treasures.* By L. S. JOYNES, M.D., Emeritus Professor of Physiology in the Medical College of Virginia, Secretary Virginia State Board of Health, &c., Richmond. (Read before the Richmond Academy of Medicine and the Richmond Pharmaceutical Association).

(Concluded from May No.)

The earth-worm and the wood-louse seem both to have enjoyed considerable reputation: the former as antispasmodic and diuretic—the latter as diuretic, aperient, and resolvent. They were prepared for keeping by washing in white wine, and then drying thoroughly, so that they might be pulverized when wanted for use. But the little animals last named were sometimes taken *au naturel*. Boys living in the country (where they are frequently found on turning up a stone or a log of wood) are more familiar with them under the name of “sow-bugs,” or “old sows.” Their singular habit of rolling themselves up into a little ball when touched, which must have been noticed by every one who has seen them, suggested to the old-time doctors a convenient mode of administration, as the insect thus forms itself into a *natural pill*. They were thus often swallowed alive, from 50 to 100 at a dose, as we are assured by Parr. This odd remedy stood its ground much longer than many of its old contemporaries, for it is still to be found duly catalogued, as late as the year 1810, in Coxe’s American Dispensatory, under the title of *oniscus asellus*, or *millipeda*.

As to the remedial virtues of what the Codex dignifies with

the sonorous title of *scarabæus niger fimorum*, which we anglicize by the short and homely but expressive name of "tumble-bug," my old European oracles afford little light. Fortunately, I have an American authority to fall back upon. In the "Natural History of North Carolina," by John Brickell, M. D., published in 1743, these insects are described under a *still plainer name* than tumble-bug—a name which expresses the *subject* as well as the manner of their labors—and it is affirmed that "their powder is used against the falling out of the fundament, to expel urine, and to cure the bite of a mad-dog. The juice cures wounds, and (in plasters) buboes, and pestilential carbuncles."

Ants were supposed to have a medicinal virtue, dependent upon the acid ("formic") to which they impart their name, and which they contain in great abundance; and their expressed juice was applied externally as a counter-irritant in rheumatism. The *ant's nest* was also sometimes used as an application for the same disease; and it was believed that ants taken internally, in substance, or infusion, or in the form of a water distilled from them, possessed an *aphrodisiac* power.

Bees, dried and powdered, were sometimes taken internally as a diuretic, or applied externally to promote the growth of hair.

Snails were highly recommended in pulmonary consumption and other states of impaired nutrition, the viscid, slimy juice in which they abound being considered highly nutritious and demulcent. A decoction of snails in milk was especially praised, and a medicated water was prepared by distilling snails with the whey of milk—though what was the medicinal product of such distillation, it would be difficult to divine.

But there are yet to be mentioned various animal structures and products, some of which at least are quite as odd as anything heretofore noticed. Omitting some items of minor interest, the following may be particularized:—

The bone of the bullock's heart (*os cordis bovis*):—The bone of the stag's heart (*os cordis cervi*), which held a much higher place in the estimation of the practitioners of those days:—The stag's horn, or "hart's horn" (*cornu cervi*) the very name of which is a lesson in medical history, and of which there were various and highly important uses; among other things, a

“volatile salt” was obtained from it, and a “spirit”—“*salt and spirit of hartshorn*”—which reveal the origin of the designations now applied in common parlance to the preparations of ammonia:—The elk’s hoof (*pes aleis*), both taken internally and worn as an amulet around the neck, for the cure of epilepsy—the belief in its peculiar virtues having arisen from the fact that the elk was popularly reputed to be subject to that disease, and to obtain relief by *putting the point of its hoof into its left ear*:—Ivory, used as an internal remedy, both in the natural state and calcined:—The wild boar’s tusk (*aper, dens ejus*):—The bones of animals:—The “snake-stone” (*lapis serpentis*), vaunted as a topical remedy for snake-bites, and said to be obtained from the head of the venomous serpent of India called *cobra de capello*, but probably a factitious article, whose virtues were altogether fabulous:—The jaw-bone of the pike:—Cuttle-fish bone (*os sepiæ*):—Hare’s fur, prepared for internal use by incineration:—Crab’s eyes and claws:—Burnt sponge—a highly-prized remedy for goitre and scrofula until superseded by the preparations of iodine, and not dismissed from our own Pharmacopœia until 1860:—Raw silk—a remedy of no mean estimation; for, says Parr, “raw silk, when calcined, is said to excel the sponge in its medicinal effects; for it yields more *volatile salt* than any other animal substance;” it also furnished a spirit and a volatile oil:—The spawn of the frog, from which was prepared a medicated water by distilling the spawn to dryness:—The blood of the wild goat (*hircus montanus*):—Ambergris:—Different kinds of bezoar—(of which last two articles, more anon):—The excrement of no fewer than six different animals, viz: the dog (whose white excrement—*stercus canis*—was dignified with the classical *alias* of *album Græcum*), the cow, the peacock, the common fowl, the goose, and the pigeon. A charming assortment for the druggists to keep in store and manipulate!—though hardly more odoriferous than the assafoetida, the castor, and other dainties which are still held sacred. What use was made of these savory products, I do not in every case know. The *album Græcum*, however, which, very appropriately, was gathered during the *dog-days*, was ranked as a local stimulant and revulsive, and was used, mixed with honey, as an external application in sore throat. The hen’s dung was an important ingre-

dient in the "ointment for burns;" that of the pigeon entered into the composition of a plaster, as already mentioned; and from that of the cow was distilled an *aromatic water*, called *aqua milleflorum*, that is, "water of a thousand flowers!" When we consider the matter philosophically, or physiologically, the appropriateness of this designation cannot be wholly denied; for the cow, grazing upon the luxuriant meadows in spring-time, crops not a few flowers, and doubtless part of the substance of these flowers is duly represented in the excrement. Still, it would be a pity if this bit of the old pharmaceutical terminology should come to the ears of those fastidious young ladies who delight in using the modern *extrait de mille fleurs* as a perfume for their lace handkerchiefs. It is but right to add, however, that there is another *aqua milleflorum* in the Codex, which can lay a more decent claim to the appellation.

It will be observed that the list of abominations presented does not contain *human* excrement: yet we learn from Dr. John Cheyne that this, with other things almost equally disgusting—such as the after-birth, frog's livers, the testicles and urine of the wild boar, the human liver and blood, etc.—was formerly much in vogue in the treatment of epilepsy. Can we wonder, after all this, that the old women in the country should still sometimes administer, with full faith in its efficacy, what they call "nanny tea"—that is, an infusion of "sheep's litter"—or that the peasants in France, and perhaps elsewhere, should use a poultice of cow's dung? We can surely find it in our hearts to pardon them for this, when we recollect that within a very recent period learned physicians have recommended and employed *guano* as an external remedy for various affections.

Another article which the *Materia Medica* list of the Codex does not contain is *urine*: yet this was formerly employed as a medicine, both internally and externally, as we are informed by Lewis, who says that, when boiled with bran, it was regarded as a very efficacious resolvent and discutient. "Recent cow's urine," he adds, "has been *drunk* in the spring, to the quantity of a pint or more every morning, for several days, as an attenuant and deobstruent in different disorders: the nauseous draught purges plentifully by stool, and sometimes vomits." Dr. Paris, in his *Pharmacologia*, quotes an old writer named Hartman as

affirming that among the poor he has often seen difficult labor accelerated by a draught of the *husband's urine*, and further, that horse-dung infused in wine is efficacious in expelling the placenta.

It seems but fair to the practitioners of the olden time that I should here recall the proposition, made some years ago by our former clever fellow-townsmen, Dr. P. H. Cabell, to treat diabetes by *making the patient every day drink his own urine*, with the view of restoring to the system what it daily lost—a prescription faithfully followed, as I am informed, by a gentleman whom I well knew, for several months, and (as he thought) with decided benefit.

While turning up our noses at these excremental horrors, let us not forget the actual services which they have rendered us. Let us recollect that the burning of camel's dung in Egypt formerly produced all the sal ammoniac used in Europe, and that the same salt was afterwards made in England by burning cow's dung: that carbonate of ammonia was first prepared in Europe from putrid urine, and hence called "spirit of urine;" and that phosphorus was originally obtained from the same fluid.

I must not pass over without some further notice substances formerly possessing such interest and value as *ambergris* and the *bezoars*. The former article, usually found floating on the surface of the sea in Southern latitudes, especially in the Indian Ocean, is known to be formed in the intestines of the sperm-whale, but whether as the natural excrement, or as a morbid concretion, does not appear entirely certain: but from the fact that it contains a substance analogous to cholesterine, we may reasonably regard it as akin to the biliary concretions of the human subject.

The estimation in which ambergris was formerly held may be inferred from the circumstance, stated by Hooper, that it sold in London at a guinea an ounce. It was not only highly valued as a perfume, its fragrance being most agreeable and pervasive, but was also employed in medicine as a cordial, antispasmodic, and *aphrodisiac*. Perhaps I cannot better illustrate its general reputation than by a quotation from a distinguished layman, Col. Byrd, of Virginia, author of the *Westover Manuscripts*. In the "History of the Dividing Line" (between Virginia and

North Carolina), written about the year 1736, the author, after referring to the origin and sensible properties of ambergris, remarks: "besides the Fragrancy of this Animal Substance, 'tis a very rich and innocent Cordial, which raises the spirits without stupefying them afterwards, like Opium, or intoxicating them, like Wine. The Animal Spirits are amazingly refreshed by this Cordial, without the danger of any ill-consequence, and *if Husbands were now and then to dissolve a little of it in their Broth, their consorts might be the better for it, as well as themselves.*" Trousseau assigns to ambergris therapeutical powers very nearly agreeing with those of musk, but it has now passed entirely from the hands of the apothecary into those of the perfumer.

The bezoar has also fallen so completely into discredit and disuse, at least in all countries where medicine has kept pace with the general advances of science, that there are doubtless many now in the profession who never heard of it. Yet the bezoar was once esteemed a medicine of such rare virtues that it sold for ten times its weight in gold; and it was among the articles considered worthy of being made presents from one crowned head to another. Three, for instance, were sent by the Shah of Persia to Napoleon the First; but he, with true French incredulity and irreverence for the traditions of the past, instead of preserving them as priceless treasures for the hour of mortal peril, handed them over to his chemists to be analyzed and destroyed.

The bezoars were concretions taken from the alimentary canal of different quadrupeds, and had therefore, as to their origin, a certain relation to ambergris. They appear to have consisted mainly of biliary matters, and to have been in truth a sort of biliary calculi, or gall-stones. The "oriental" bezoar, which was the most highly prized, was a small greenish or olive-colored concretion from the fourth stomach of the gazelle of India. The "occidental" was found in the same cavity of the wild goat of Peru. But besides the true, there were spurious bezoars—artificial imitations of the genuine, made of earth skillfully colored. It is not surprising, indeed, that attempts should have been made to counterfeit articles of such "great price and great fame." The reason of their extraordinary celebrity lay

in the fact that they were believed to possess unrivalled "alexipharmic" powers, against which no poison, or contagious or pestilential influence could prevail. Their name, indeed, was derived from a Persian word signifying an antidote to poison.

Having used the term *alexipharmic*, which was as common in the old medical literature as it is unheard of in the new, I may state in explanation that it was applied to medicines supposed to "preserve the body against the power of poisons, or to correct or expel those taken into the system." Many medicines were thus classed to which we now ascribe no such prophylactic or antidotal virtue:

The powers attributed to the proper bezoars in these respects naturally led to the employment of other animal concretions for similar purposes, though these were not officinal in the Codex. One was obtained from the monkey (*lapis simiæ*); another from the porcupine (*lapis hystricis*); and even the urinary calculus of the human subject was sometimes employed under the title of "human bezoar." Alas! for the stability of human science, and the certainty of human experience: the glory of all the bezoars has departed, with that of syrup of vipers and oil of bricks!

When we look into the *chemical* department of this Pharmacopœia, and turn our attention to the salts, and especially to the metallic preparations, we soon get bewildered and lost among a multitude of terms drawn from the mixed language of alchemy and astrology. *Crocus Martis, regulus Jovis, regulus antimonii, ens Veneris, ens Martis, terra dulcis vitrioli, æthiops martialis, crystalli lunæ*—such are a few samples. In the *Materia Medica* list of the Codex, the astrological designations of all the old metals are retained: thus, gold is *aurum vel sol*; silver, *argentum sive luna*; copper, *æs, sive cuprum, vel Venus*; tin, *stannum, vel Jupiter*; iron, *ferrum, sive Mars, aut chalybs*; lead, *plumbum, vel Saturnus*; while, in one instance, the astrological name of *Mercury* has been handed down even to us. It may be remarked by the way, that the fact that copper and Venus were formerly synonymous terms in chemistry, accords very curiously with the circumstance that *venereal eruptions are generally copper-colored*.

Among the preparations of mercury in the Codex is one, of

which the title, *panacea mercurialis*, at once arrests attention; and it requires no great acuteness to guess that this means *calomel*. *Mercurius sublimatus dulcis* also, is a title that ought to signify calomel—and so it does—this preparation and the last differing only in certain steps of manipulation which do not affect the essential character of the compound. A singular *alias* for this preparation is *aquila alba*—"the white eagle." Doubtless this name was bestowed upon it by some enthusiastic admirer, who likened the triumphs of calomel over disease to the resistless swoop of the eagle upon its prey. The word *calomel*, however, nowhere occurs in the book; and it is interesting to find that Blancardus, whose Lexicon was published, as I have said, two years before the Codex, describes "*calomelas*" as *mercurius cum sulphure diu tritus, et in corpus nigrum redactus* (mercury rubbed a long time with sulphur, and reduced to a black substance). This is of course the black sulphuret of mercury, or ethiops mineral; though Blancardus adds that by *later* authorities the name of calomel is given to the *mercurius dulcis*, which, as already remarked, is the calomel of the present day. Etymologically considered, however, the name was much more appropriate to the compound to which it was originally applied, as this was deemed *good* as a medicine, while *black* in color—qualities designated by the Greek adjectives *kalos* and *melas*—while it is only in a far-fetched and questionable way that the appellation can be made to fit the mild chloride of mercury.

Of the preparations of mercury, it may be further noted that there are *five* "precipitates" described in the Codex, viz: the white and the red, as known to us,—the *yellow*, which is subsulphate of mercury, or turpeth mineral,—the *green*, which I take to be an acetate of mercury and copper,—and the *mercurius precipitatus per se*, which is the red oxide of mercury made by simply exposing the metallic mercury to a high temperature, without the employment of any chemical solvent or reagent.

Knowing that the preparations of *gold* have been introduced to the notice of the profession during the present century, with considerable flourish, as something new, I feel that justice to the learned faculty who stood sponsors for the Codex of 1758 requires me to state, that they were quite familiar with the use of gold as a medicine in several forms; so that the fashionable

physicians of the gay times of Madame de Pompadour could offer to the luxurious courtier and the wealthy *bourgeois* their choice between the richest gems and the noblest of metals. The Codex orders *gold leaf* as an ingredient of two different confections; and among its officinal preparations are fulminating gold (*aurum fulminans*), and tincture of gold, or *aurum potabile*—both destined for internal administration. *Aurum potabile*—“drinkable gold!”—the very name is seductive.

To satisfy any curiosity which may be felt with regard to this attractive potation, I will state that the Codex directs it to be prepared by dissolving pure gold in *aqua regia*, and agitating the solution with essential oil of rosemary. On standing, the *aqua regia* will subside to the bottom, and the oil of rosemary, impregnated with gold, and tintured yellow accordingly (*says the Codex*), will float on the surface. The oil is then to be removed and mixed with rectified spirits of wine, and this mixture is the *aurum potabile*. Parr, however, intimates very plainly that this preparation contains not a particle of gold. The *aurum fulminans* he declares to be dangerous, and he pithily affirms that “gold in any form can only be an *an amulet against poverty*.”

There are many more things in the chemical department of the Codex, of interest especially to pharmacutists, but I am compelled to pass them by.

If time allowed, I would like to dwell at some length on the compound preparations not embraced in the chemical department—*compositiones galenicæ*, as they are styled—the study of which reveals much that is interesting and curious. I have already noticed incidentally some of these compounds, more or less remarkable for the singular character or the number of their ingredients. Complexity is in fact a prevailing feature: the genius of polypharmacy here reigns supreme. The medical men of that day had evidently not learned to appreciate the beauty or the more solid advantages of simplicity, and they often brought together in the preparation of one compound the strangest and most diversified—nay, heterogeneous—assortment of roots, flowers, leaves, gums and liquids, as if to make sure of having something in the prescription to hit the disease it was aimed at. The simile of loading the gun with small shot is here strikingly appropriate.

We have, for instance, a "hysteric water," with 32 ingredients; an ointment ("of Martianus") with 34; the compound oil of scorpions with 32; a "vulnerary water" with 46; the world-renowned and time-honored *theriaca* of Andromachus (handed down from the time of Nero) with 66, among them troches of vipers; the equally famous *mithridate*, commemorating by its name the King of Pontus, who was its author, with 46, among which was the powder of vipers; the *orvietanum* (celebrated in one of Moliere's comedies) with 54. But the *ne plus ultra* of complexity was reached in the *aqua generalis*, a distilled water with 127 ingredients, in which the whole list of aromatics and cordials seems to have been exhausted, while ingredients of other classes were not wanting.

One might suppose that all this polypharmacy had by this time vanished forever. Not so: although in England and America the very name of *theriaca* is almost forgotten, and the anglicised form of it—treacle—now means nothing but molasses, the venerable farrago still holds its place in the Paris Codex, and with the number of its ingredients rather increased than diminished, the most recent formula enumerating 72. In Italy and Spain also it yet survives. What is called *theriaca* in some other European pharmacopœias is a much simpler and more reasonable compound, approximating in character to our confection of opium. But we must not criticise too harshly the old and genuine medley, nor ridicule the folly of giving a drachm of the most heterogeneous stuff, for the sake of the single grain of opium it contains: for no less an authority than Professor Trousseau is an outspoken advocate for the use of *theriaca* in certain cases, and avers that cures may be obtained with it which could not be effected with opium singly; and even our countryman, Professor Stillé, in his able and elegant work on Therapeutics, admits that the weight of testimony is in its behalf, and questions the justice of its condemnation.

Apropos of opium—it is worthy of note that what is called *laudanum* in the Codex is a *solid extract of opium*; and we find Huxham, who wrote a few years earlier, speaking of having given to one of his patients "seven grains of solid laudanum." The *laudanum liquidum Sydenhamii* of the Codex is a wine of opium: there appears to be no preparation corresponding to our tincture of opium.

But I must close without speaking of other notable preparations in this old pharmacopœia, of which the very titles, in numerous instances, are sufficient to excite our curiosity—such, for example, as the *pulvis contra rabiem*, the *emplastrum divinum*, and *emplastrum manûs Dei*, the ointment of the Apostles, the opiate of Solomon, the balsam of needles, the *mercurius vite* (which, by the way, is not mercury at all), the *lily of Paracelsus* or *tincture of the metals*, etc.

While we wonder and smile at what seem to us the absurdities of those who have gone before us, can we feel quite sure that a hundred years hence *our* pharmacopœia will not appear fully as strange and inconceivable to the medical men of that advanced age? We hardly dare flatter ourselves to this extent, when we bear in mind what has been done within the recollection of all of us who have reached middle age, and when we find that the chemical language with which we have been so long familiar, and which we have so much admired, is even now slipping away from us, to become obsolete, perhaps, before the close of the present century. He who has witnessed the introduction of the anæsthetics, the bromides, hydrate of chloral, nitrite of amyl, and the hypodermic syringe, can set no bounds to his anticipations of the future, and may almost look forward, with Professor Simpson, to a time “when our patients will be asked to *breathe or inspire* most of their drugs, instead of swallowing them; or at least, when they will be changed into pleasant beverages, instead of disgusting draughts and boluses, powders and pills.”

ART. II—*Syphilitic Laryngitis; Crico-Arytenoid Anchylosis; Gummy Tumor at the Root of the Neck, Compressing Left Bronchus. Partial Recovery.* BY ANDREW H. SMITH, M.D., of New York.

E. H., a native of Ireland, aged 47, presented himself in January, 1873, at the Throat Clinique at the Manhattan Eye and Ear Hospital, with a syphilitic history dating back from three years. He had had an abundant eruption, scales in the hair, alopecia periosteal pains, etc., besides the affection of the

throat, for which he sought advice. This latter had already existed for more than a year. At one time the throat had been very badly ulcerated, but had improved greatly under treatment. He remained, however, aphonic, and suffered considerably from dyspnœa, which he referred to the throat. He had been under the care of a specialist for several months, who had made a great variety of local applications with marked benefit. He had also employed internal treatment.

On inspection the palate and pharynx were found considerably congested, otherwise normal. The mucous membrane of the larynx was very much injected, but no cicatrices were recognizable. The ventricular bands were thickened and swollen, concealing the vocal cords. In phonation the left arytenoid cartilage remained fixed, while the right one crossed in front of it, bringing the posterior half of the right cord into view from beneath the ventricular band. The portion of the cord thus seen appeared to be normal. In deep inspiration the right cord was well retracted, while the left remained stationary; but there was ample space for the passage of air, so that it was evident that the dyspnœa did not have its origin in the larynx.

The immobility of the left cord at once suggested aneurism of the arch of the aorta pressing upon the recurrent nerve. On examining at the root of the neck I found a tumor indeed, but it presented none of the characteristics of an aneurism. It occupied the inferior carotid triangle; was soft and diffuse, and gave the feel of a gummy tumor, which the sequel proved it to be.

On applying the ear to the chest, I found that there was scarcely any respiratory murmur to be heard on the left side. At the root of the lung a droning sound could be heard, as of air passing through a compressed tube. Inspection showed the respiratory movements on the left side to be almost nil, but the symmetry of the two sides was perfect in the intervals of respiration.

Percussion yielded normal resonance on both sides. In view of these several points, the diagnosis was made of a gummy tumor at the root of the neck, extending into the chest and pressing upon the left bronchus, preventing the free access of air to the left lung and giving rise to the dyspnœa; while it involved

at the same time the left recurrent nerve, producing paralysis of the left vocal cord.

The internal use of the iodide of potassium was at once begun, commencing with 45 grains daily, and increasing the dose rapidly until it reached 120 grains. At the same time mercurial ointment was rubbed twice daily into the tumor in the neck. Under this treatment the improvement was very rapid. In a few days the air could be heard to enter the left lung much more freely, and the dyspnoea was proportionately relieved. The growth in the neck diminished rapidly in size, and in the course of a few weeks disappeared entirely. Still there was no improvement in the voice, and the left vocal cord remained as immovable as ever. This led me to the conviction that either the recurrent nerve had been irreparably injured by the pressure to which it had been subjected, or else that the preceding inflammation in the larynx had resulted in ankylosis of the crico-arytenoid articulation. That the latter was the case, I suspected from the fact that when in phonation, the right arytenoid cartilage impinged against the left, it did not impart motion to the latter. The diagnosis was confirmed by pressing against the arytenoid cartilage with the laryngeal probe, when it was found to be firmly united to the cricoid. By degrees the excursion of the right cord was increased, and the latter acquired the power of applying itself more accurately to its fellow, so that the voice was considerably improved, though it still remains a hoarse whisper.

This case is of interest from the error of diagnosis as to the condition of the larynx, which error naturally resulted from the presence of an apparently sufficient cause for paralysis of the cord. Ankylosis of the crico-arytenoid articulation is mentioned by writers as one of the results of severe laryngitis; but I have not been able to find a case described, nor any guide to diagnosis. I am inclined to think that a good many cases of so-called paralysis, are merely instances of this affection. From my experience in this case I should suspect ankylosis whenever loss of motion followed severe inflammatory action. The diagnosis is easily made by means of the probe, and is of importance, as it may save the patient a good deal of useless and somewhat painful treatment.

ART. III.—*Two Cases of Post-Partum Hemorrhage treated by Perchloride of Iron.* By G. T. SCARBURGH, M.D., Norfolk, Va.

Believing with Dr. Chambers that "it is the duty of every member of the profession to contribute his mite to the common stock of knowledge," and especially whatever may tend to settle any mooted question, I offer from my note-book the following cases of Post-Partum Hemorrhage treated by Perchloride of Iron as showing its efficiency and safety.

1. The patient, a robust woman of twenty years of age, primipara, aborted at the third month. Two days afterward, I was called in consequence of constant and severe bleeding. On my arrival I found her very pale, with a weak and fluttering pulse, and a constant, free flow of blood. Examination revealed a portion of the secundines lying partly within the uterine cavity, and partly within the vagina, which, together with some clots, I removed. The womb was soft, and rather larger than usual; the os open, soft and yielding. Wrapping the end of a sound with a little cotton wool, I introduced it within the cavity of the womb and cleansed it as fully as possible. The bleeding still continued—no effort at contraction being perceptible. Again arming the sound with the cotton wool, I saturated it in a solution of equal parts of the solution of the perchloride of iron and water, and freely swabbed out the cavity of the womb. The bleeding ceased promptly, and the womb slowly, but firmly contracted.

Not a bad symptom occurred of any kind, and she rapidly recovered—very soon regaining her usual robust health.

II. In this case the patient, a negro woman of about forty years of age, multipara, in good health, was prematurely delivered at eight months in consequence of a severe fall. She was attended by a midwife, who stated that she had fallen, in attempting to get over a fence, hurting herself severely. Two hours after the fall, labor pains came on, and she had a rapid delivery. She seemed to be getting on very well until about an hour after the birth of the child, when she told the nurse she "had a great flow." Examination showing that she was flooding rapidly, I was sent for. I saw her three hours after. I

found her much exhausted, breathing hurried, pulse fluttering, and scarcely perceptible; the womb very much distended, and filled with clots, and the bed soaked with blood. Seeing the case was a very urgent one—the woman being almost unconscious—I determined at once to use the solution of perchloride of iron. Rousing her sufficiently, I managed, with great difficulty, to get down a good dose of brandy and opium. Introducing my hand into the womb, I turned out a large mass of coagula, and immediately injected a solution of four drachms of the liq. ferri perchloridi to eight ounces of water. The action was very prompt. Almost immediately I felt the womb contracting freely and strongly, and within ten minutes it was firmly contracted. No further bleeding occurred, and she recovered without a single bad symptom.

These cases have fully satisfied me of the great value and effectiveness of the perchloride in cases of post-partum hemorrhage. In each case the action was prompt, persistent, and entirely devoid of any bad symptoms. That there may be, under certain circumstances, danger attending the use of the perchloride, I am not prepared to deny; but with the fact of violent uterine hemorrhage staring me in the face, I should promptly apply the remedy, control the bleeding, and assume the responsibility of possible untoward results from its use. With the agent at hand, I should never permit my patient to approach exhaustion, but apply it promptly and fearlessly, strong in my faith that it is most potent for good, and that possible evils are heavily overbalanced by the immediate and absolute demands of the existing danger.

Sinapisms.—In making a mustard plaster, use no water whatever, but mix the mustard with the white of an egg, and the result will be a plaster which will “draw” perfectly, but will not produce a blister, no matter how long it is allowed to remain upon the part—*Med. Brief.*—*Southern Med. Record*, April, 1874.

Correspondence.

Rapid and Easy Delivery.

CAMP GRANT, ARIZONA TERRITORY, }
April 8th, 1874. }

Editor Virginia Medical Monthly:

The following incident may interest some of the readers of the *Medical Monthly*. While scouting recently with a detachment of the 5th U. S. Cavalry in the Santa Teresa mountains in pursuit of hostile Apache Indians, one of their principal chiefs sent a messenger into our camp offering to surrender his tribe, numbering about a hundred, and return peaceably to the *reservation*. After a little parleying terms were agreed upon, and all the next day the men, women and children were straggling in, bringing all their worldly goods upon their backs.

Among the squaws was one far advanced in that interesting state that all good wives who love their lords are supposed to delight in. She had walked eight miles over a rugged, rocky mountain, bearing quite a burden on her shoulders. During the night our slumbers were briefly disturbed by some significant groans, a few sharp screams, followed by the cries of a new-born child.

At sunrise the mother *straddled* a pony and rode twelve (12) miles over a frozen trail with the little babe—neither of them suffering any injury therefrom.

A late agent on the San Carlos reservation relates the following: "The Indian Department are in the habit of issuing on certain days rations for each man, woman and child; and on one of these occasions a crowd was assembled around the agency awaiting their turn, when a little commotion was noticed among the squaws, one of whom was seen to lay down on some hay on the ground while others gathered around, the cause of which was explained in few minutes by the screams of an infant. In less than half an hour the mother claimed a ration for the little stranger."

Such is woman in her *wild* though *natural* condition. A bad community for a doctor, you will doubtless say!

B. G. McPHAIL, M. D.

A. A. Surgeon, U. S. A.

Acute Lead-Poisoning.

Editor Virginia Medical Monthly:

I read with interest a case of *Acute Lead-Poisoning*, caused by an over-dose of acetate of lead, reported by Christopher Tompkins, M. D., in the April number of the *Virginia Medical Monthly*; and also read with interest the comments of H. Wythe Davis, M. D., upon that report in the May number of the same journal.

Lead-poisoning is, usually, a chronic disorder, and is most frequently caused by the gradual introduction of lead into the system. Acute lead-poisoning is rare, but a number of cases are given by Alfred S. Taylor, M. D., in his work on *Poisons*, where acute poisoning has followed almost immediately upon swallowing an ounce of acetate of lead.

The fatal dose has not been accurately ascertained. Taylor states the following symptoms when the quantity taken has been one or two ounces: "A burning, pricking sensation in the throat, with dryness and thirst; vomiting supervenes; there is uneasiness in the epigastrium, which is sometimes followed by violent colic. The abdomen is tense, and the parietes have been occasionally drawn in. The pain is relieved by pressure and has intermissions. There is, in general, constipation of the bowels. If any feces be passed, they are commonly of a very dark color, indicative of the conversion of lead into sulphuret. The skin is cold, and there is great prostration of strength. When the case is protracted, the patient has been observed to suffer from cramp in the calves of the legs, pain in the insides of the thighs, numbness and sometimes paralysis of the extremities, and even coma. A well-marked blue line has been observed around the margin of the gums where they join the teeth."

Taylor gives the following typical case, as presenting the ordinary symptoms of acute poisoning by acetate of lead, which fully sustain Dr. Tompkins in the correctness of his diagnosis: "M. A., aged 41, was admitted into Guy's Hospital, May, 1846, laboring under symptoms of poisoning by sugar of lead. It

was ascertained that two hours previously she had swallowed about one ounce and a half of sugar of lead, or half a teacupful dissolved in some water. She felt ill almost directly, had a nauseous, metallic taste in her mouth, with a burning heat in the mouth, throat and stomach. She took some more water to wash down the taste. This made her vomit, and thus she was detected by her friends. Her mouth became very dry, had great pain at the pit of the stomach and excessive vomiting. On admission—i. e.—about two hours after the poison had been taken, she felt sleepy and stupid, alternately perspiring and shivering; complained of violent twisting pain in the abdomen, but this was relieved by pressure. With this there was a sensation of sickness. She felt exceedingly weak and languid; complained of a feeling of cramp in the thighs, and numbness all over the body, with giddiness. The gums felt to the patient to be in lumps, and there was apparently a blue line on the edge; they were very tender. The saliva seemed rather in excess, and the breath was foul. Magnesia mixture and the sulphate of zinc were given to encourage vomiting, followed by castor oil, which acted in two hours afterwards. The pulse was hurried, and the tongue coated. Countenance anxious and excited; skin dry, cold and hot alternately. The urine was passed very freely; was menstruating at the time, and this stopped the discharge. Breathing impeded from pain in the bowels. The next day she was very sleepy but in less pain. For several days the abdomen was excessively painful on the slightest pressure. She left the hospital in five days."

Taylor says "that even when patients recover from the first effects, the secondary effects often last a considerable time, but that paralysis and other symptoms of nervous disorder are by no means necessary consequences." He quotes from the *Lancet*, April 4th, 1846, the case of a girl who had swallowed sixty grains of acetate of lead, and suffered severely from the primary symptoms, "who recovered and left the hospital in about three weeks, without any paralysis or other disorder of the muscular system." He also gives a case of Dr. Hviding, where a girl swallowed about three drachms of the acetate of lead in broth. Two hours afterwards she began to experience sharp colicky

pains in the abdomen, followed by vomiting. No medical treatment was used for three days. The only marked symptom was constipation. Castor oil was given; the girl recovered.

ARCH'D TAYLOR.

Richmond, Va., May 10th, 1874.

Chloral-Hydrate in a Case of Rigid Os-Uteri in Labor.

I was called to see J. B., colored, æt. 30, multipara, Tuesday morning, April 14th, who had been in labor since Friday night (81 hours). On examination, the os was found to be about one and a half inches in diameter and very rigid; pains irregular and ineffective.

R Chloral Hydrat. - - - 3j.

Syr. Aurantii - - -

Aquæ Fontan. - - - aa 3j.

M.—Sig. 3ss for a dose.

Three doses were given at intervals of about twenty minutes. The os soon relaxed. The pains improved in regularity and character, and in little over an hour from the time the first dose was given, she was delivered of a full size male child. The placenta was soon expelled, and the womb contracted firmly. I could not see that the suffering of my patient was lessened as I had expected, although she asserted that she never had such an easy time.

WM. A. THOM, M. D.

Richmond, Va., May 1st, 1874.

Pathognomonic Sign of Pertussis.—The practitioner may be sometimes consulted on a case of hooping-cough without having the opportunity of witnessing a paroxysm. In such a case M. Bouchut recommends him to examine the frænum linguæ, which he will always find the seat of a small ulcer in children the subjects of pertussis, or who are on the point of becoming so—*Révue Médico-Photographique*.—*New Orleans Med. & Surg. Jour.*, May, 1874.

Analyses, Selections, &c.

Report on the Origin of the Yellow Fever in Norfolk (Va.) during the Summer of 1855.—(Made to the City Councils by a Committee of Physicians.)

[We have been requested by several subscribers to re-publish this report in full, as it appeared in the *Virginia Medical Journal*, August, 1857. The report, however, is so lengthy that we have been induced to make the following synopsis, which we trust will fairly represent the merits of that valuable paper, and, at the same time, serve the purposes of our friends.—ED.]

The object of this report is to record a correct history of the conditions and circumstances which preceded, if they did not cause the outbreaks of the fever in Norfolk and Portsmouth in 1855, and thus aid in solving the question so deeply interesting to the health and prosperity of seaport cities, viz: *Is yellow-fever of local origin, or an imported disease?*

Norfolk lies in latitude 36° 50' N. and longitude 76° 10' W., on the east bank of Elizabeth river, about 6 miles south from Hampton Roads, and about 15, in a direct line over a wooded country, from the Atlantic ocean. It is nearly surrounded by water—the river on the west and south, Newton's creek on the east, and Smith's creek on the north. Several small creeks penetrate into the city, and branching in various directions, serve as natural drains of its surface. The water is salt, and in the river and eastern branch, deep enough for the largest ships. The tide flows into the creeks and coves twice a day, leaving their surface quite bare at low water. The borders of these marshy creeks have never been considered unhealthy, unless where the free entrance of the tide has been obstructed by making streets or causeways across them. Where this has been done, the immediate neighborhood has become subject to intermittent fevers. The surface of the town and adjacent country is nowhere more than 10 or 12 feet above the river line. Near the wharves, it is occasionally overflowed, as during an equinoctial gale. The soil is alluvial, consisting of a stratum of clay from 3 to 6 feet thick lying upon fine sand. The commercial part of the city—from 100 to 300 yards wide, and more than half mile long—lies between Main street and the river. Most of this land has been reclaimed from the river by filling originally—some 60 years ago*—with pine saplings cov-

*These dates apply from the time at which the Report was made.—ED.

ered with earth, but this earth is now perfectly solid. The eastern half of the made ground, however, on which Barry's row is situated, has been filled up within the past 15 or 20 years. The streets are almost universally paved and well drained, and are kept clean. The well water is hard, and unpalatable, containing salt and lime; but for the last 30 years cistern water has been used. The climate, although variable, is mild and agreeable throughout the year—the heat of summer being moderated by sea breezes which prevail with tolerable regularity. The summer nights are particularly pleasant, as compared with those of inland towns in the same latitude.

Portsmouth lies on the opposite side of the river, which is here more than half mile wide. Gosport is on the Portsmouth side of the river, but higher up and south of it. Between these places flows a marshy creek 400 yards wide, crossed by a causeway and bridge. The principal street in Gosport is Water St.—parallel with, and about 100 yards from the river. Between this street and the river is Page & Allen's ship-yard. It fronts on the river, and extends to Water street. Near the river front is an old brick house, used as a workshop and stable. The wharf is of wood, and old. A small dock, partially filled with mud, but covered with water at high tide, enters the yard from the river. Between the brick house and Water street is another dock, partly filled with mud and timber, but covered at high tide. The surface of the yard is covered with chips, but is clean and well drained. The streets of Portsmouth are wide, but mostly unpaved, and badly drained. The back of the town is somewhat cut up with marshes.

The population of Norfolk is about 16,000; of Portsmouth, 10,000. In point of health, they compare favorably with other towns of the same size—the annual mortality being about 2½ per cent. The greatest mortality is in July; next in June—then August—principally among young children, due to dysentery, cholera infantum, &c. The mortality during September does not exceed the monthly average of the year. October is a very healthy month; and November the healthiest of the year. Vernal and autumnal intermittents are met with, but are rarely if ever fatal. The old-fashioned bilious fever is seldom seen. Within the cities, the most thickly settled parts are the healthiest, and yet Main and Water streets have been the usual seats of yellow fever. The country around is very subject to malarious diseases.

The first epidemic of yellow fever in Norfolk was in 1795; after which it prevailed every year until 1805—except 1804,

when there was but a single case. The fact that it prevailed in 1805 with great malignancy—the year after the great fire—is deemed of importance as showing the fallacy of attributing the disease in former years to local causes.

After 1805, the disease did not appear again until 1821. July 20th of this year, a vessel arrived in harbor from Gaudaloupe. Her bilge water was pumped out in the dock, and was so offensive as to cause inmates of a house—15 or 20 yards distant, on the west side of the dock—to close their doors and windows. July 31st, a clerk who slept in Southgate's warehouse, about 20 yards distant on the east side of the dock, was taken with the fever, and died August 16th. On the same day the cook in the other house was attacked and died August 9th. In short, the only one of the family (seven in number) who escaped was the master, whose duties took him from home at the time the bilge water was pumped out. A man who assisted in pumping out the water, and a boy who had frequently been about her at the same time sickened and died. The disease continued to spread from this time and this centre.

By rare good fortune, after the lapse of 35 years, the Committee learned through a sailor named Douglass, who was on the vessel on her passage from Point Petre, Guadaloupe, that two of the seven men (composing the crew) died. On arriving at Hampton Roads, two others died; and that Point Petre was very sickly at the time the vessel (named George Armstead) left that port.

The next epidemic commenced in the same neighborhood, about the first of September, 1826, and continued until frost. This epidemic was attributed to a vessel that discharged a cargo of damaged coffee in the neighborhood. No person who had not visited the infected district (between Main street and the river) was attacked.

After this year until 1852, there were only three cases, all occurring on ship board in 1848. The epidemic of 1852 began during the middle of September, when the season was unseasonably cool, and continued until frost. Its general character was mild; but unlike former visitations, a few scattered cases, which could not be traced to the infected district, occurred north of Main street. More than six weeks after its commencement in Norfolk it appeared in Portsmouth, and was fatal in four cases.

The first case in Norfolk during this epidemic was probably that of a white girl who had been living in Somer's row, near the western extremity of Water street. She died on the 7th or 8th of August, after an illness of 4 or 5 days. Information

regarding this case is not obtained from professional sources, but the symptoms as described by friends who saw her justifies the inference that it was a case of yellow fever. From this date deaths continued to occur every few days in Somer's row; from which centre the disease gradually spread over the lower part of the town. Somer's row is occupied by very decent people, and is situated in a very open and well ventilated district. The Committee further ascertained that on July 20th. the Spanish barque, *Tascio*, arrived from Havana where yellow fever was prevalent and malignant at the time. On her arrival, two of the crew were sick—one died. They were seen by a homœopathic practitioner, not educated as a physician, who pronounced the disease typhus or typhoid fever, whose diagnosis the Committee questions—believing from concurrent circumstances that the disease was yellow fever. The season was cool and healthy, and there was no apparent local cause for the disease.

In 1853 there was no case of fever in the town. In 1854, there were three cases—all fatal. The cause of these cases is not distinctly traceable, though a French steamer was lying a mile or two distant with very malignant yellow fever on board. Four cases occurred on the opposite side of the river, which were attributed to some glass jars that floated ashore from this steamer.

Coming now to the study of the epidemic of 1855, the Report begins by giving the following tables compiled from the Army Meteorological Register, kept at Fortress Monroe, 12 miles north of Norfolk, which, for the purpose of comparing different seasons, will answer as well as if kept in the city itself. It exhibits the mean monthly temperature of the first nine months of 1826, 1852 and 1855, as well as the monthly mean of 30 years from 1825 to 1854; and of rain fall in each of the same months of the years 1852 and 1855, as well as the mean of 18 years;—

	Jan.	Feb.	March	April.	May.	June.	July.	Aug.	Sept.
THERMOMETER :									
1826.	43.55	48.23	54.87	56.63	71.57	78.02	79.98	79.33	76.51
1852.	35.19	42.62	48.87	53.44	65.85	72.74	76.23	74.12	70.20
1855.	43.48	36.79	44.00	59.33	67.72	74.81	82.30	79.44	76.51
Mean of 30 years	36.54	41.67	48.29	56.17	66.14	74.22	78.28	77.25	72.08
QUANTITY OF RAIN :									
1852	0.90	1.18	1.82	2.72	1.53	1.89	3.83	4.90	1.55
1855.	1.60	0.40	2.00	0.45	2.10	3.80	1.65	1.80	3.30
Mean of 18 years.	3.26	2.74	3.33	2.80	3.64	3.78	5.56	5.70	3.43

From this table, it appears that the fever years, 1826 and 1825, differed remarkably in temperature. In 1855, the fever

commenced in June, so that the heat of later months could not have caused the outbreak. As to rainfall, the spring was unusually dry, while June was very wet. With the exception of scarlet fever in March and April, there was less sickness than usual up to the middle of July, nor was there any cause to anticipate the approach of a great epidemic. There was, however, a great deal of dirt in the yards and houses of the lower classes. The fruit was remarkably fine and perfect—contrary to statements which have been made but which had no foundation.

On June 6th, the steamer, *Ben Franklin*, arrived in distress from St. Thomas, where yellow fever was prevailing when she left; and anchored at quarantine, a mile below the city. The quarantine officer, Dr. Gordon, visited her next morning and was told by the captain that there was no disease on board—that two men had died during the voyage of 10 days, one of heart disease and the other of exhaustion from over work, neither of whom had headache, fever or vomiting. Dr. G. found the rest of the crew healthy, and the ship clean. The captain and crew were allowed to visit the city, but the vessel was kept in quarantine. As the captain was anxious to go to the ship-yard to have the steamer repaired, Dr. G. again visited her June 18th, found that there had been no disease during the quarantine, that the vessel was clean, with no cargo except some iron cannons, a small supply of coal and a few barrels of pork. She was, beside, leaking so badly as to require the constant use of the steam-pump, and consequently could have no foul bilge water. After consultation with the board of health, the vessel was allowed to go (June 19th,) to Page & Allen's yard at Gosport for repairs, where she remained until July 8th, when she was sent back to quarantine in consequence of yellow fever attacking (July 5) a laborer who worked on the boiler and died July 8th.

The Committee took great pains to find out more of the history of the *Franklin*, and attending circumstances. Without going into details, it appears from the evidence of the engineer, Mr. Bowen, on board the *Franklin*, of Capt. Wm. Phillips, of the bark, *Eliza* of Baltimore, an old trader to the West Indies, and of others, that fever was very prevalent at St. Thomas at the time the *Franklin* left *en route* for the U. S. It further appears from the evidence of Mr. Bowen and others that the *Franklin* had at least three cases of fever on board before her arrival at Norfolk, and that a fourth case occurred while she lay at quarantine, which was attended by the Captain of the *Franklin*, and concealed by him from Dr. Gordon until at last the Captain sent him to the Marine Hospital near Portsmouth (June

21st) to prevent his dying on board. This case was the first of yellow fever that occurred in the port during the year.

June 24th, a Mrs. Fox was attacked. She lived at the mouth of Scott's creek, on the river shore, about a mile and a half from Gosport. While some parties attributed this case to malaria arising from the marshy shores, and decaying cucumbers near the house, the Committee contends that it is far more probable, as the Franklin was for nearly a fortnight lying about a mile distant, and five days before Mrs. Fox's sickness passed within a third of a mile of her house, that "this lady was made sick by the infected air from the ship blown ashore by the wind, than that she took yellow fever in the country without any cause whatever except such as ordinarily produces intermittent fever, but was never known before to cause yellow fever." Yellow fever occurred in this house in 1854, when it was traced to the *Chinere*, lying at the same spot. This view "is confirmed by similar occurrences in 1856 in the harbor of New York, where the disease was manifestly blown to the Long Island shore * * * from yellow fever ships lying in quarantine, at a distance of some hundred yards."

The next cases that occurred on shore were attacked about June 30, about 10 days after the Franklin arrived at the wharf. They all lived in the same house in Page & Allen's yard in Gosport. This house is the nearest tenement to the berth of the Franklin—about 100 yards in a westerly direction. It is probable that they had not been on board. On the same day, some of the Franklin's crew were attacked. July 5th, a workman on board was taken. On 9th and 10th, respectively, two other cases died directly opposite the house on Water street in which the first cases lived.

From this time the disease continued to spread; by August 1st it reached Capt. Barrow's house at the navy yard, about 600 yards southwest from the ship. At the same time, it reached the southern part of Portsmouth, about as far from the ship yard to the north.

The first case in Norfolk occurred July 16, and up to the 30th inst. there had been 16 cases—all in Barry's row, and seen by Dr. Geo. L. Upshur. The first case, Mrs. Cusack, had not been out of her house for several weeks, being an invalid. The first death occurred July 29.

Before Mrs. Cusack's case, two deaths occurred in Norfolk, which require notice, as some supposed them to be due to yellow fever. An Irishman—sailor, of dissipated habits—died July 2, in Barry's row, after so short an illness—two or three days—

that a coroner's inquest was held. He had been drinking to excess a few days before his death. No physician saw him during life, and none of the symptoms could be learned. "But the late Dr. Constable, who attended the inquest, afterwards remarked to a friend, that from the yellowness of the skin, and some suspicious looking dark matter on the floor, he should have suspected that his death was owing to yellow fever, if that disease had been prevailing at the time."

The other case, a child, æt. 7 years, corner Main and Fayette streets, sickened June 24th or 25th, was seen on 27th by Dr. Selden, and had diphtheritis of the pharynx and tonsils, with acrid discharge from the nostrils, and some fever. On 30th, with exception of excoriations from the acrid discharge, he seemed perfectly well, and was discharged.

July 1st, 4 P. M., he was taken with fever, headache and drowsiness. The fever continued for 58 hours, when it suddenly ceased, leaving him with cool skin, slow pulse, and very prostrate. But the drowsiness increased, and by night amounted to stupor, and he died without delirium or convulsions at 5 A. M. the next day, 5th inst. At 10 P. M. on the 4th, he vomited some dark matter which, as seen by stains on the sheet, resembled black vomit. During the night, his mother says, he threw up large quantities of dark half clotted blood. After death there was no yellowness of the skin.

In reviewing this case, the Committee remarks that "if it had occurred at any other time, it would probably have been considered as one of those unaccountable cases of blood poisoning, which are occasionally met with in all climates and at all seasons." "But if it were yellow fever, it could hardly have been from any local cause—1st, because the neighborhood is remarkably clean, well drained and healthy; 2dly, because there was no other case of fever in that neighborhood until the 10th or 15th of August, * * * and it is difficult to imagine that a poison arising from local causes could have been so limited in amount as to affect only one person, and no other for six weeks afterwards."

The Committee thinks that the case of Mrs. Cusack, July 16, in Barry's row was the first in Norfolk during this epidemic. From this centre, the disease spread in all directions. After the street (Church) was paved, the basement floor was below the level of the sidewalk. In wet weather, the water rose even above the planks, and mixing with the slops from the houses, furnished a nidus for the origination or propagation of any pestilential disease. The lower end of the row is about 80 yards from the river. Page & Allen's yard in Gosport is distant 1.07

mile S. W. by south. From June 19 to July 15, the wind prevailed from southwest 16 days; west 8 days; south, southeast, northwest, each 1 day. None among the early cases were persons who had been to Gosport; nor did any one move over from Gosport until 7 days after the disease had existed in the row.

During the period that the Franklin was at Gosport, a steam ferry-boat for conveying workmen at the navy yard made two daily trips between the Seaboard & Roanoke R. R. depot, in Norfolk, about 150 yards from Barry's row, and a wharf about 25 yards from the Franklin, where there was a detention often of 20 minutes. The street along Barry's row is also the common thoroughfare for passengers by the R. R. ferry. It thus appears plain, there must have been quite constant intercourse between the infected district of Gosport and Barry's row.

As soon as yellow fever was noticed in this row, the board of health barricaded the streets leading to it, and forbade all intercourse; and as soon as possible removed all the inhabitants to temporary sheds beyond the city limits. On August 9, the entire block was burned. "New cases, however, immediately appeared in the vicinity;" and "the epidemic wave, extending in a circle as the ripple from a stone thrown into water, day by day invaded house after house, and street after street." To this uniform advance, "there were a few exceptions, where the poisoned air seemed to shoot out from the general line of march, and overleaping the intermediate space, would infect some particular spot several days before the intervening streets showed any cases." "Yet, on the whole, its progress was very regular and uniform, being at the rate of 40 yards a day." Local conditions did not seem to affect the spread or malignancy of the epidemic. No where was the mortality greater than on Smith's point, which is sparsely peopled, and is as dry, clean and well-ventilated as a country village * * *. In this respect there was a striking difference between the fever of 1855 and all previous epidemics." The disease even passed in some directions some distance into the country. But it extended more readily along the water, where there was nothing to obstruct its progress.

When the disease had approached the northwest limits of Norfolk, after prevalence of the wind from that direction, several new cases occurred on the U. S. ship St. Lawrence, which had dropped down to the bight of Craney Island, 2 or 3 miles below the city, "and curiously enough among those who slept in the uncovered ports looking towards the city. This continued to be the case until near the close of the epidemic."

Some cases, it is alleged, occurred on Craney Island, nearly 4 miles below the nearest part of Norfolk. A solitary case, Miss Taney, occurred at Old Point, 12 miles from Norfolk. She was taken September 25th, and died on the 30th. She occupied a cottage near the beach, remote from all causes of a local character that could engender malaria of any kind, had carefully avoided communication with persons coming from Norfolk or Portsmouth, and a rigid quarantine had been kept up at Old Point since the beginning of August. The Committee does not attempt to explain the origin of this case. The day after Miss T's death, the weather became so cold as to render fires necessary. This probably accounts for there being no other case at the Point.

The epidemic in Norfolk reached its acme about the last of August, and continued without abatement until the middle of September, when it gradually declined, probably from want of subjects, and was finally arrested by frost and ice, October 26th.

This epidemic differed from previous epidemics only in its greater malignancy and wider diffusion. Of the symptoms, suppression of urine was perhaps more common than had previously been observed.

The Committee could not ascertain correctly the number of cases; but there were probably from 8,000 to 10,000—nearly the whole population that remained in the city. Of those who had the disease in 1852, however slightly, the Committee did not hear of a single one who was attacked in 1855. Most of those who had the fever in 1821 or 1826 escaped; others had it mildly. The blacks were as susceptible as the whites to the disease, but they bore it better. Very few of the pure blacks died, while mulattoes suffered almost as much as the whites.

The number of deaths was about 2,000. Probably more than one-third of whites attacked died. There were but two deaths, so far as the Committee could learn, among those who had had the fever before, viz: Dr. Sylvester, who thought he had it in 1821, and Mr. Higgins who thought he had it 15 or 16 years before in New Orleans.

In no case could the Committee trace the attack to contagion.*

From these facts, the Committee concludes:

1. That the climate and situation of Norfolk cannot be very

*Dr. A. B. WILLIMAN, one of the Committee, however, makes the following foot-note: "My own personal observation, which is on record in the *Charleston Medical Journal* [May, 1856], is not in accordance with this opinion, having seen reason to believe in a contagious property exhibited by the epidemic yellow fever which prevailed here in 1855."

favorable to the development of yellow fever, inasmuch as from 1805 to 1855 there were only three epidemics, viz: 1821, 1826 and 1852.

2. That prior to the epidemic, the year was not remarkable either for heat or moisture. "That the heavy rains of April and May, followed by a long drought, suggested in the Portsmouth report as the cause of the fever, did not exist. On the contrary, April and May were unusually dry, and June very wet."

3. That the city "was probably in as good order as most towns of the same size, and certainly as clean as it had been for the last 29 years." There had been no recent filling up, and no excavations for gas or water-pipes, &c. During the epidemic, the cleanest, driest and best ventilated places were not more exempt than the dirtiest and most crowded—showing that the disease was not owing to animal or vegetable decomposition.

4. That during the first half year the public health was, for anything, better than in preceding years.

5. That all previous epidemics began in Norfolk, and only extended after weeks to Portsmouth and Gosport, where they were less prevalent than in Norfolk—a circumstance probably due to the fact that all vessels from West the Indies came to Norfolk.

6. That the epidemics of 1821 and 1852 have been traced to vessels from West India with fever on board. That of 1826 was attributed by popular opinion to a similar source.

7. That the fever of 1855 began June 30 in a house adjoining Page & Allen's ship-yard, without any obvious or probable cause of disease. The dock, though partially filled with mud and logs, is covered with salt-water at high tide. The marshes around Gosport—which are not in the vicinity of Page & Allen's yard—are in much the same condition as they have always been—giving rise to intermittent and remittent fevers. But as they have never before caused yellow fever, the Committee does not think that they acquired this potency in 1855.

8. That June 19th, eleven days before the first cases in Gosport (the period that usually intervenes between the arrival of an infected vessel and the first cases of fever ashore), the Franklin from St. Thomas arrived at Page & Allen's yard, about 100 yards from the house in which the first cases occurred. That this vessel probably had cases on board while at St. Thomas, and certainly some on the voyage; that there was a fatal case concealed on board when she came to Gosport; that while at the yard other cases occurred among those employed on

board; that cases continued to occur on board after returning to quarantine—thus showing that she was infected.

9. That the fever began July 16th in Norfolk in Barry's row, 17 days after the commencement in Gosport. That from the arrival of the Franklin at Gosport to the outbreak in Barry's row, the wind prevailed almost constantly from southwest; which the Committee thinks transported the material cause of the disease from Gosport or the Franklin to the dirty habitations of Barry's row. That neither was the distance too great nor the time (28 days) too short for this occurrence. In stating this opinion, the Committee refers to the fact that the next year (1856) the disease was thus communicated from vessels at quarantine to Long Island near Fort Hamilton, when it continued to spread until frost.*

10. That the disease did not break out simultaneously in all parts of the city; but starting from a central point, it advanced steadily and regularly in all directions until arrested by frost. A similar mode of extension has never been observed in regard to intermittent and remittent fevers, which diseases depend upon local and atmospheric causes.

11. Yellow fever north of Gulf of Mexico never appears in inland towns, unless previously existing in neighboring seaports, where it generally begins on the wharves. The Committee knows of no causes, either local or meteorological, which are peculiar to seaport towns, and to their commercial parts, not equally found in inland towns, except the presence of ships from foreign parts. Accordingly the origin of yellow fever is ascribed to importations in ships.

12. The fever in 1855 did not appear, in any case that was observed, to be communicated by contagion. The great number of instances in which persons from Norfolk died in other places without communicating the disease, proves as far as negative facts can prove anything, that the disease is decidedly not contagious.†

Finally the Committee is unanimous in the opinion that the epidemic of 1855 was introduced solely by the *Franklin* from St. Thomas.

*Dr. A. B. Williman, before signing the Report, says: "I do not incline to this opinion, but think it more likely that either the ferry steamer * * * or the workmen on board of her [Franklin] acted as the communicating agent of disease. My knowledge of the fever at Fort Hamilton does not allow me to speak all."

†Dr. A. B. Williman on this proposition remarks: "My observation favored an affirmative opinion of it [contagion]. Again, I think that the cause of yellow fever is some minute material germ, capable of reproducing itself when given off from the human body suffering under this disease."

The Committee does not determine the material cause of yellow fever, since it is not tangible and cannot be subjected to analytical examination. The hypothesis which, in the opinion of the Committee, best explains most of the known phenomena, is that its material cause is some organic matter endued with the property of rapid reproduction, either in a soil or atmosphere congenial to it, but not capable of being reproduced in the human body. That this matter, whether of animalcular or vegetable character, is a production of tropical regions, and is only spread in temperate climates, when introduced into them by ships.

The Committee advises the Councils that while they should adopt strictest sanitary regulations to diminish the spread and malignancy of subsequent epidemic, the chief reliance for escape from yellow fever must be in rigid quarantine at a safe distance of all vessels arriving from suspected ports.

[Signed:]—Wm. Selden, M. D., Robt. B. Tunstall, M. D., Wm. J. Moore, M. D., S. D. Campbell, M. D., Robt. H. Gordon, M. D.

Before signing thereport, A. B. Williman, M. D., beside the foot-notes given, remarks: "If hazarding any advice in addition to that given in the report, it would be plainly this—to remove all persons sick of yellow fever as far as possible from a crowded city population, and especially from that of the laboring Irish, who now abound in Norfolk."

Cincho-Quinine.—J. F. Miller, M. D., Goldsboro', N. C., says in the *Philadelphia Medical and Surgical Reporter*, February 14th, 1874: "I have been using it freely for about twelve months, and have fairly tested its virtues, both as a tonic and antiperiodic, and I can safely recommend it to my professional brethren as a most valuable medicine. I have observed but one unpleasant effect on children, *i. e.*, an efflorescence of the skin after giving the medicine for several days in full doses; but this effect is comparatively rare and really of little importance.

* * * It will require one-eighth more by weight of the cincho, to make it equal to the sulphate of quinia as an antiperiodic. But the sulphate costs a little more than one-third more than the cincho. * * * The cincho-quinine certainly agrees with the stomach better than the sulphate, and produces little or no nervous derangement, and is consequently preferable to the sulphate in many cases. Notwithstanding the eruption that now

and then appears from its exhibition to children, I regard the cincho-quinine the very thing for this class of patients; for by making an elixir of the medicine, they take it very readily, which is a most important consideration.

The following are only a few of the many cases of children treated with the cincho-quinine. I also give the formula used by myself in preparing the elixir:

Ella, æt. 18 months, has had intermittent fever, quotidian form, for several days. Chill believed to appear from 8 to 10 A. M.

R—Cincho-quinine	- - -	grs. vij.
Arom. sulph. acid	- - -	gtt. v.
Syr. ginger		
Rose water	- - -	aa ʒss

Mix and dissolve. Sig. Teaspoonful at 8 and 11 P. M., and 2 and 5 A. M.

No perceptible chill, but a slight fever came on about 1 P. M.

Repeat the prescription at 5, 7, 9, and 11 A. M. on following day. Result, no chill or fever, and patient recovered without further difficulty.

Tommy, æt. 5 years, has had two chills, tertian form; the last chill being very severe, and fever lasting unusually long; bowels costive. Time of chill, 7 A. M.

R—Hydrarg. chlorid. mitis		
Leptandrin	- - -	aa gr. ij.—M.

Sig. Take at bed-time.

Medicine acted well early next morning; at 8 and 11 P. M., and 2 and 5 A. M., two teaspoonsful of the following mixture were given:

R—Cincho-quinine	- - -	grs. xij.
Arom. sulph. acid	- - -	gtt. vij.
Syr. ginger		
Rose water	- - -	aa ʒj.

Mix and dissolve. Result, no return of chill or fever, and patient rapidly recovered. The remainder of the prescription was given to him in teaspoonful doses *ter in die*.

The last case that I shall notice (though many others might be given) is that of my own child, Charlie, æt. seven and a half years. To him I gave the same prescription given to Tommy, with a like result.

A few drops of tinct. cinnamon will add to the agreeableness of the elixir of cincho-quinine.

Camphor-Chloral.—Lenox Browne, F. R. C. S. E., in the *British Medical Journal* states the results of his experience with this agent—the formula for which is given in the May number of the *Monthly*, page 114. He says: “I have now employed this preparation for several months, and have induced many professional friends to use it also. Having in every case found great, and often instantaneous relief follow its application, I think the members of the Association may be glad to have the opportunity of adding to the very uncertain stock of anti-neuralgic remedies which we have already at our disposal. Its success does not appear to be at all dependent on the nerve affected, it being equally efficacious in neuralgia of the sciatic as of the trigeminus. I have found it of the greatest service in neuralgia of the larynx, and in relieving spasmodic cough of a nervous or hysterical character. It is only necessary to paint the mixture lightly over the painful part, and allow it to dry. It never blisters, though it may occasion a tingling sensation of the skin. My friend, Mr. George Wallis, allows me to say that he has found it of great service as a remedy which patients can apply themselves for the relief of toothache; and to its success in this respect I can also personally testify. In the original article, the compound was recommended for arresting the progress of incipient boils and carbuncles. I have no experience of its value for this purpose.—*New Orleans Med. & Surg. Jour.*, May, 1874.

Electricity in Poisoning by Opium.—In a case of attempted suicide by an overdose of opium, occurring May 11th in the Maryland Inebriate Asylum (Baltimore), after the ineffectual use of ordinary remedies, Dr. J. J. Caldwell was called in, and after the application of the Faradic current, continued from 3 to 7 P. M., the patient recovered.

Absolute Alcohol, according to the experiments of Horwath, of Kiew, when reduced in temperature to 20° F., is superior to cold ether, or ice, or spray of volatile substances generally as a local anæsthetic.

Commotio-Retinæ Successfully Treated by Constant Current.—Prof. W. W. Seely, M. D., Cincinnati, in the April number of *The Clinic*, reports two cases of this condition, of interest on account of the beneficial results of the application of the constant current. After remarking that “by careful comparison with the other eye, if healthy, some hyperæmia of the retina or optic nerve (Wells) may be detected, or some few extravasations of blood” may usually be noticed, he states, however, that the cases he presents showed “no difference between the fundus of the injured and healthy eyes.” He details the following cases:

A German girl, for whom he had prescribed glasses two years ago on account of hypermetropia, said that a splinter struck her on the lower lid, and that after she could open the eye she found she could not see with it. Five days after the accident, he found the skin of the lid unbroken, and as she complained so little of the injury itself, he suspected the eye might have been blind before the injury, and she had only then found it out. But his case-book showed that each eye had been examined when he prescribed the glasses, so such a supposition had to be abandoned. She could barely distinguish light.

He applied the Z pole of Siemen & Halske's battery (using 10 cups) to the neck, and passed the other over the closed lid for about a minute. On removing it, she quickly remarked, “its all right now, I can see.” Putting on her glasses she could read Nos. 7 and 8 of Yæger quite readily. He applied the current again, when she read No. 1. The following day her eye was not so well; he again applied the stream, and told her to return the next day. She said on her third visit that she thought she was about well; but he gave her a short sitting, after which he did not see her until she came in about ten days for her bill, remarking that her eye was as well as ever.

A boy about 12 years of age was struck upon the eye with a top. When he presented himself, Dr. S. found him unable to

follow a lighted taper, though he seemed to be able to tell when it was close in front of his eye. The reflex action of the pupil, as in the other case was good, and ophthalmic examination revealed no changes in the fundus. The current was applied in the same strength and manner as in the first case with almost the same brilliant result. No. 10 Yæger was easily read, and the next day before trying the current, No. 6 Yæger. A second sitting was quite sufficient to restore perfect vision.

Dr. S. has no doubt of the efficacy of the current in some forms of ocular trouble. He has had striking results in paralysis and paresis of the ocular muscles treated by the current alone.

Treatment of Fractures.—Dr. J. Stearns, of Milwaukie, gives the following description of his method of treating fractures, in the February number (1874) of the *Detroit Review* :

I long ago discarded the use of weights or pulleys, screws or springs, for purposes of extension in fractures, and have come to consider them as instruments of torture, and altogether useless, if not positively detrimental. In the hospital where I now am, I have had as many as six fractures at one time, every one of which, except a fractured clavicle, was treated by compression alone.

Allow me to describe, in a few words, the treatment and dressing for a fracture of the middle of the thigh. Four pieces of wood, say three-eighths of an inch thick, are cut as long as can be applied without involving the protuberances at each end of the shaft, each a little less in width than one-fourth of the circumference of the limb, and tapering to conform to the shape. These are padded with wadding secured by a roller bandage.

Let an assistant hold the limb, as near in its normal position as may be, place a splint under, one on each side, and one on top of the limb; with a tape, passed around in a loop, tie at the centre, another at each end, two more between; by this time you can tighten the centre one, then the ends, and so on, until by reducing the size of the limb, it corresponds in length with its fellow.

No pulling is necessary, but the fragments readily come into apposition; and if the lower fragment be held in proper position,

the fracture is thus painlessly reduced—you then have the limb under the most complete control—if it swells, as it always will, you can loosen the tapes with no bandages to unwind. It is never required to have it tied so tight as to impede the circulation; and, if care be exercised during the whole time to have just pressure enough to keep the limb extended, little discomfort is experienced by the patient, and a good recovery results with the smallest amount of shortening.

The same plan applies equally well to the leg or arm. This method is presented not as a theory, but as the result of actual practice.

As to fractures of the clavicle, no person can bear a pad in the axilla, as a fulcrum, with the humerus as a lever. The indications are to carry the shoulder upwards, outwards and backwards. This is easily accomplished by placing the hand of the injured side on the sound shoulder, and placing a broad bandage around the neck and the point of the elbow.

Poisoning by Vanilla-Ice.—Dr. L. Rosenthal recently read a paper on this subject before the Berlin Medical Society, which is translated in the *London Medical Record*, March 25th, 1874, from the *Berliner Klinische Wechenschrift*, March 9th, from which we make the following extracts:

The chemical investigations carried on under my direction, by order of the President of Police, by Dr. Schädler, have shown that the hypothesis that the poisoning is to be attributed to cardol, is untenable; but experiments which I have made in conjunction with that gentleman on rabbits and cats, have had a negative result.

In my opinion, poisoning by vanilla-ice is not so very rare as is generally assumed, especially when we consider that vanilla-ice is not one of the articles of food in every day use. Cases of poisoning of this kind were, within my knowledge, first observed and described by Orfila, in Paris, more than twenty years ago, and in that city cases of poisoning by ices have repeatedly come under notice from time to time. Similar observations have been made in some other places on several occasions.

All these cases of poisoning have this peculiarity, that they always have one starting point; all, or, I will say, nearly all

the persons, who at a certain time eat vanilla-ice in a certain *café*, become ill; while other persons in another place do this with impunity. Here in Berlin, in the last days of August, 1873, an endemic of this kind prevailed; all the persons, who at this time ate vanilla-ice in the Vienna *café*, suffered from more or less severe symptoms.

During the night of August 26-27, I was called to a family, in which I was attending one of the daughters in the last stage of phthisis, whom I visited on the evening of the 26th. With the exception of the consumptive patient, all the family, consisting of the father, mother, and two other daughters, were in perfectly good health. The messenger told me that nearly the whole family had cholera. On inquiry, I was informed that the patients had eaten ices in the *café* in the evening. As, so far as we know, it is only vanilla-ice that causes poisoning, I made inquiries as to whether they had taken vanilla-ice, and found that they had done so. In this way, I entered the sick chamber with a diagnosis already surely made.

The mother and one of the daughters had each eaten a portion of vanilla-ice about 10 P. M. They had taken a third portion home, and had divided it into two equal parts. Of one of these, the father ate two teaspoonfuls, and gave the remainder to his consumptive daughter; the third daughter ate the other half; and a little old dog licked the one plate that was used. All the members of the family, including the dog, were taken ill during the night. At 11 P. M., the eldest daughter began to vomit, and violent diarrhoea soon afterwards set in; half an hour later, the same symptoms showed themselves in the mother, and the remaining members of the family followed. On the whole, the severity of the symptoms was in proportion to the quantity of the ice taken; so that the mother and eldest daughter suffered most; the father least. He had vomiting and diarrhoea twice only; then followed the phthisical daughter, and finally the third daughter and the mother. As no notice was taken of the dog during the night, I cannot say when the symptoms of the disease began in it; but the next morning we found the room extensively soiled with vomited matters and fæces, and the symptoms continued through the whole of the next day. The animal refused food, did not come when his master called

him, and showed by his behaviour that he was in great pain. The evacuations on the second day consisted mostly of whitish mucus.

The symptoms in the mother and one of the daughters were so violent, that they nearly completely assumed the form of cholera. Vomiting followed vomiting, stool followed stool. To these were added violent cramps in the calves of the legs, coldness of the extremities, lividity of the limbs and of the face, and the pulse could hardly be felt. Both had violent gastralgic and enteralgic symptoms, and the pupils (as also in the other cases which I have observed) were moderately dilated, and were slow in responding to the stimulus of light.

The duration of the illness was greater or less, according to the severity of the symptoms. The mother was quite well, with the exception of some weakness, on the fourth day.

The prognosis, from the observations already made, was favorable; for, hitherto, no case of death from poisoning by vanilla-ice has come to our knowledge.

In the same night, several quite similar cases occurred. Herr Güterbock, senior, was kind enough to send me one of his patients after recovery. He and his wife had suffered from the same symptoms as have been described above. It is remarkable, however, that this gentleman suffered for some time from a painful sensation, as of burning, in the mouth and throat. In these parts, a number of red and inflamed spots were seen on the third day; and, at the time, I was inclined to attribute them to the action of cardol, which, according to Schroff, acts even more energetically than cantharidin. This observation in the meantime stands alone; in the other cases I observed nothing of the kind.

Three other cases were observed on the same night by Herr Riedel, in a family which had eaten vanilla-ice. As, however, Herr Riedel declared the patients to be suffering from cholera, I will make no further comment on his cases. The patients recovered.

A day later, another case came under my observation. The patient had eaten some ice about 2 P. M., after his dinner; at 5 o'clock he was taken ill, but recovered the next morning. Finally, two other cases came to me in the night of September 1 and 2.

Similar cases were communicated to me by Messrs. B. Fränkel, Steinauer, Danziger, O. Simon (who himself was poisoned), J. Meyer, Citron, and Oppenheim. Besides these, I have heard of a number of cases through the public; among them I will mention a family in the Chausseestrasse, of which all the eight members were taken ill in one night.

I come now to the question: Wherein lies the source of poisoning by the use of vanilla-ice? The symptoms may be caused: 1. by cold; 2. by the materials constituting the frozen substance; 3. by other injurious substances accidentally introduced.

Regarding ice as such, its use may be followed by gastric catarrh and other slight stomach disorders, but it is not known that symptoms resembling those of cholera follow its use. Further, symptoms like those which I have described have never yet been observed to follow the use of fruit-ices; and among cream-ices it is, as far as our knowledge extends, only vanilla-ice that has produced symptoms of poisoning.

Fruit-ice is prepared with sugar and the acid of lemons, to which the desired fruit-juice is added; while, in the preparation of cream-ice, eggs and cream are used, and the flavor is given by adding vanilla, chocolate, &c. Besides these, the various kinds of cream-ice are boiled before being introduced into the freezing vessel, which is not the case with fruit-ice.

The most careful chemical examinations have given the following results: Most frequently (as in our case) traces of lead are found, now and then more or less iron, and in two cases there were not inconsiderable quantities of tin. As we may exclude the lead and iron (the former on account of its small quantity) from suspicion as the causes of illness, there remains only the tin; and, in fact, Green, who made a chemical examination of the ice which led to poisoning in Altona, has expressed the opinion that the tin combines with the lactic acid formed from the cream, forming a lactate of tin, which acts as a poison on the organism. The experiments, however, which Maurer of Erlangen has made with tin on animals, have shown the complete harmlessness of this metal. In our case, the vessels used in the preparation of the ice were found to be in a faultless and thoroughly clean condition. The ingredients were boiled in

well-tinned copper vessels, and the freezing was carried on in clean porcelain cylinders.

Whether eggs can give rise to symptoms of poisoning is unknown to me; and thus we come to the only remaining possibility, that the poisonous agent is contained in the vanilla-pods. The idea is opposed by the fact that, though vanilla is extensively used in the preparation of tea and chocolate, as well as of sauces and soups, which only differ from vanilla-ice in containing greater quantity of milk and in being of a higher temperature, the use of these has never been observed to be followed by symptoms of poisoning. We cannot regard any of the substitutes for vanilla, such as balsam of Peru or storax, as the vehicles of the poison, since in all the known cases it was really vanilla that was used in the preparation of the ice, and neither Peruvian balsam nor storax can be reckoned among poisons.

I must on the other hand mention a circumstance, which, in my opinion, gives incontestable evidence that the poison is contained in the vanilla-pods. Cases of poisoning by vanilla-ice occurred in a confectioner's in Altona. The proprietor of the shop was in consequence obliged to give up his business; the vanilla-pods in his store went into the possession of a confectioner in Bergen—and the ice made with these pods proved to be poisonous.

I now hold, with many others, the opinion that the symptoms of poisoning produced by vanilla-ice must be placed to the account of the vanilla-pods; but the endeavors to ascertain the poisonous agent have hitherto been in vain. Martius believed that he had found it in the crystals covering the pods, since he observed, that the pods gathered in the East Indies were covered with crystals of a different shape from those on the pods imported from Mexico. In our case, the pods had no crystals at all. Schroff, who had occupied himself with the subject most thoroughly, has put forth three hypotheses, of which he holds the first to be most probable. In Columbia, he says (*Lehrbuch der Pharmacognosie*, 2nd ed., 1869), the pods are greased with the fatty oil from the seeds of the *anacardium occidentale* (cashew-nut) and dried in the sun. As a very acrid juice is contained between the endocarp and ectocarp of this fruit, it is possible

that, in preparing the oil from the seeds without sufficient care, this, and the vanilla-pods over which it is rubbed, may become contaminated with the acrid juice; and that in this way the occasional occurrence of poisoning after the use of vanilla-ice may be explained in these cases, where no other injurious condition can be ascertained. In another place (*Wiener Medizinische Wochenschrift*, No. 82, 1863), he says that experiments on rabbits with cardol prepared from this oil have shown that it is capable of producing the symptoms observed in patients.

Setting aside the fact that other observers make no mention of the rubbing of vanilla-pods with the cashew-nut oil, Schroff does not show that the cardol used in the experiments was derived from vanilla-pods. Thus his hypothesis loses probability; and Dr. Schädler has been informed that there was no cardol in the vanilla-pods obtained from the Vienna *café*.

The second hypothesis which Schroff puts forth, is that, in the vanilla-fruits, on careful microscopic examination, there are found in the parenchymatous cells of the mesocarp packets of sharp-pointed, needle-shaped crystals, which were very large in the vanilla used in preparing the ice in question; and, according to Soubeiran, they act like nettles on the skin. These must act as mechanical irritants; but in the ice examined, they were always in a broken-up condition.

Finally, whether any of the fatty acids formed under certain circumstances may be the cause of the poisoning, must remain undecided—as yet, there is no proof of such a cause.

In conclusion, * * * there is one thing to which I may direct attention. I have found it stated by Schroff alone that the pods are gathered when ripe. All other authors state that they are gathered in the unripe state, and prepared in many ways for use. Henkel (*Handbuch der Pharmacognosie*, Tübingen, 1867,) * * * describes vanilla as the dried, unripe capsules of the *Vanilla planifolia*; then gives the following account of its preparation: “The Indians of Misantla collect the vanilla in the mountains and forests of Quilates; the fresh capsules contain an acrid viscous juice, which protects them against insects. The Indians often sell the raw fruit to the colonists, who then prepare and dry them, and tie them in bundles for

sale. In Misantla, the most usual way of drying the vanilla is to spread the shrivelled, yellow fruit on linen in the sun for some hours. When the pods are sufficiently heated they are wrapped in woollen cloths, where they soon assume a dark copper color; they are then exposed to the sun from morning to evening until they are dry. When the use of the sun is prevented by continued rain, artificial heat is employed; frames are made of reed or bamboo, which are suspended by cords at the four corners and covered with woollen cloths, on which the capsules are spread. These frames are swung over a fire which does not smoke, until the pods are dried. * * * In the State of Oaxaca, the natives dry the vanilla by piercing the capsules all over with needles, so as to allow the escape of the viscous juice."

Flückiger (*Lehrbuch der Pharmacognosie des Pflanzenreichs*, Berlin, 1867), expresses himself in a similar way, though not with so much detail.

From these statements, is it difficult to imagine that in some of these pods—and, as far as we know, it is only individual pods that are poisonous—the process of artificial ripening is not complete, and that it is the unripe pods which produce the symptoms?

Dr. Rosenthal's paper was followed by a discussion.

Dr. B. Fränkel said regarding the cases of poisoning observed in his family, several persons were taken ill, nearly in the proportion in which they had partaken of a certain dish. The symptoms were such as had just been described. One person alone of the household, who did not eat any portion of the dish, remained unaffected. The dish in question was a warm, farinaceous preparation, to which vanilla was added in preparation. It was made in a porcelain vessel, and was so simple in composition, that the illness could only be attributed to the vanilla.

Dr. Veit said that, in the nights of August 28 and 29, he observed a case of poisoning with vanilla-ice. He took special notice of the fact, because a female friend of the patient (a woman) who had eaten of the same ice, was taken ill with similar symptoms. The symptoms were those of cholera, but the gastric pain was of longer duration, and recovery slower.

Dr. Kalischer on the same night saw a similar case of illness in a lady who had eaten some ice in the Vienna *café*. One of her children also ate of the ice, but was not ill. The symptoms were very severe, and the consequent prostration lasted several weeks.

Dr. Henoch said that at an evening party there were various ices, obtained from one of the first confectioners in Berlin. Dr. Henoch ate some vanilla-ice; and four hours later was taken ill. His evacuations quite resembled those of cholera, which was not epidemic at the time. On the other hand, he had no pain in the stomach or bowels, a circumstance which spoke against metallic poisoning. In the same night, a young girl and fourteen other persons of the same party were taken ill with similar symptoms; they had all eaten vanilla-ice. Those who ate other ices were not attacked. In his own case, the diarrhoea lasted four hours; no changes in the pulse or in the temperature were observed. On applying to the confectioner, he was assured that vanilla-pods of the same kind had been used for some months without producing poisoning. The pods shown him were abundantly covered with crystals. It was remarkable that the symptoms were specially severe in those persons who had eaten the portions of ice nearest to the containing vessel; especially the servants, who scraped it to obtain the portions of ice that adhered to it. In these the symptoms were so severe that death was feared. This circumstance appeared to indicate metallic poisoning.

Dr. Schiffer remarked that, in consequence of the high price of the vanilla, it frequently underwent falsification in trade, especially by the substitution of other pods like those of the vanilla. The possibility of poisoning from this source must be borne in mind.

An Epidemic of Syphilis prevailed last year at Brives, in France, due to a midwife, who had contracted a chancre upon her finger, and had carried the poison from house to house. Fifteen women, nine husbands and ten children are known to the authorities as having been thus affected, whilst many others are believed to have concealed their infection from the public—known only to the physicians.—*Phil. Med. Times*, May 16, 1874.

Proceedings of Societies.

THE ASSOCIATION OF MEDICAL OFFICERS OF THE CONFEDERATE ARMY AND NAVY.

In accordance with previous announcement, a number of the ex-Confederate surgeons convened in the Senate Chamber in Atlanta, Ga., at 11 A. M., Wednesday, May 20th, 1874, for the purpose of forming themselves into a permanent organization.

On motion, Dr. S. H. Stout, Atlanta, Ga., was called to the chair, and Dr. Chas. Pinckney, Atlanta, was chosen temporary secretary.

Dr. Stout, in taking the chair, returned thanks for the honor conferred upon him; announced as the object of this meeting the organization of a society of ex-Confederate medical officers for the purpose of preserving medical records, and thus advance the interests of science. It was to be regretted that such an organization had not previously been formed, since many of the late surgeons have died, whose experience is unrecorded, and therefore cannot be obtained. While there is a smaller attendance than was desired, this was due to no lack of interest on the part of Southern surgeons in the objects of this meeting, but simply to want of sufficient means or sufficient notice. All are anxious to contribute what they can to give interest and importance to this organization, and are only waiting to hear the result of this meeting, and to know what is expected of them. Branch societies should be formed throughout the South to obtain hospital and local statistics. Many who are unable to attend the proposed sessions of this organization in person might be heard from through these local or branch associations. The speaker closed with a tribute to the valor and fidelity of Southern surgeons to the important trusts confided to them.

Dr. W. A. Carswell, Rome, Ga., moved that delegates register their names, and then go into permanent organization.

Dr. Robert Battey and others offered amendments; but on motion of Dr. H. V. M. Miller, Atlanta, Ga., each delegate was required to register his name, present postoffice, date of commission and discharge, in what capacity served, and rank.

On motion of Dr. W. T. Goldsmith, Atlanta, Ga., a committee of seven—afterwards increased to nine—was appointed on Permanent Organization. The chair appointed Drs. W. T. Goldsmith, Atlanta, Ga.; B. A. Holt, Lake City, Fla.; W. A. Carswell, Rome, Ga.; E. D. Newton, Athens, Ga.; W. A. Green, Americus, Ga.; J. W. Oslin, West Point, Ga.; Henry F. Campbell, Augusta, Ga.; M. W. Francis, Jacksonville, Fla., and A. G. Emery, Opelika, Ala.

Dr. W. F. Westmoreland read a letter from the late Surgeon General S. P. Moore, C. S. A., Richmond, Va., regretting his inability to be present, though he was heartily in sympathy with the move. He wished to be considered a member of the organization.

A motion, that the Committee on Permanent Organization be instructed to confine their nominations for officers exclusively to persons present, was lost.

The following delegates were found to be present: Drs. W. S. Armstrong, Robert Battey, W. H. Cumming, W. F. De Witt, A. C. Fox (formerly of Virginia), W. T. Goldsmith, J. Hendree, A. F. Houston, J. M. Johnson (formerly of Kentucky), J. J. Knott, J. P. Logan, H. V. M. Miller, W. C. Moore, W. S. Owen, Charles Pinckney, E. J. Roach (formerly of Maryland), S. H. Stout (formerly of Tennessee), W. F. Westmoreland, Henry L. Wilson, J. Stainback Wilson, of Atlanta, Ga.; G. G. Crawford, E. D. Newton, of Athens, Ga.; Henry Campbell, Augusta, Ga.; W. A. Carswell, Rome, Ga.; W. A. Green, Americus, Ga.; T. K. Mitchell, Lawrenceville, Ga.; J. W. Oslin, West Point, Ga.; F. R. Calhoun, Euaharlee, Bartow county, Ga.; R. Y. Rudicil, Summerville, Ga.; A. G. Emory, G. W. Howell, Opelika, Ala.; James J. Winn, Clayton, Ala.; M. W. Francis, Jacksonville, Ala. (?); B. A. Holt, Lake City, Fla.

At the suggestion of the chair, Drs. S. H. Stout, J. M. Johnson, A. C. Fox, and E. J. Roach were added to the Committee on Permanent Organization.

On motion of Dr. Edward D. Newton (offered as a substitute for a previous motion), the Committee on Permanent Organization was instructed to nominate one Vice-President from each State represented by officers and soldiers in the Confederate States army and navy.

On motion of Dr. J. P. Logan, a committee of five was appointed to prepare business for the convention. The chair appointed Drs. J. P. Logan, H. F. Campbell, Robert Battey, W. S. Owen, and E. J. Roach.

Adjourned till 3 P. M.

The afternoon session was called to order at 3 P. M., Dr. S. H. Stout in the chair.

Dr. W. T. Goldsmith, chairman, offered the following as the report of the Committee on Permanent Organization :

"The Committee on Permanent Organization of the Convention of Medical Officers of the Confederate States Army and Navy, beg leave to make the following report :

"We respectfully nominate late Surgeon-General S. P. Moore to be permanent President of this Convention; Dr. Henry F. Campbell, of Georgia, to be Vice-President at Large; Dr. Jos. E. Claggett to be Vice-President from Maryland; Dr. Hunter McGuire, Vice-President from Virginia; S. S. Satchwell, North Carolina; A. M. Tally, South Carolina; W. F. Westmoreland, Georgia; B. A. Holt, Florida; C. J. Clark, Alabama; S. V. D. Hill, Mississippi; E. S. Drew, Louisiana; J. N. Hayden, Texas; Paul F. Eve, Tennessee; D. A. Linthicum, Arkansas; David W. Yandell, Kentucky; Lewis F. Pim, Missouri.

"The committee also recommend as Vice-Presidents at large the medical officers of the United States army and United States navy who resigned their positions for service in the Confederate States army; also recommend that the officers of the navy be requested to co-operate with the officers of this convention; also, that Dr. S. H. Stout, of Atlanta, Ga., be made secretary, and Dr. Charles Pinckney, of Atlanta, Ga., be made assistant secretary of this convention; also, that Dr. E. D. Newton be made treasurer of the same.

[Signed.]

A. C. Fox,
Secretary of Committee.

W. T. Goldsmith, Chairman.

This report was received, and on motion of Dr. B. A. Holt was unanimously adopted as a whole.

On motion, Drs. W. T. Goldsmith and J. M. Johnson were appointed a committee to conduct Vice-President H. F. Campbell to the chair (the President-elect not being present).

An invitation was received from Dr. T. S. Powell for the convention to have a social meeting at his house (No. 82 S. Prior st.), between 8 and 11 this evening, which was accepted.

[From the reports given of this sociable by the Atlanta papers, as also from our private correspondents, it was a most pleasant meeting, graced by the presence of ladies, who always add so much to the charms of such parties. In every respect, this sociable was most pleasant.—ED.]

On presentation by Dr. W. F. Westmoreland, it was

Resolved, That all surgeons, assistant surgeons, or acting assistant surgeons be permitted to register as members of this Association.

On presentation by Dr. W. A. Carswell, it was

Resolved, That all medical officers from the time of their first to the time of their last service and capacity, be recorded.

The following telegram from Vicksburg, Miss., was read and received :

The undersigned, ex-Confederate medical officers, send greetings, and regret their inability to be with you in person, and assure you of our sympathy and co-operation in this beginning of annual re-unions.

[Signed] D. W. Booth, L. M. Capers, J. R. Hicks, J. R. Barnett, J. M. Hunt, P. O'Leary, W. E. Brickel, G. W. Howard, and P. F. Whitehead.

Dr. J. P. Logan, chairman, presented the report of the committee to prepare business for the Association, which was discussed *seriatim*. Pending the discussion on the second section Dr. J. M. Johnson offered the following, which was adopted :

Resolved, That all resolutions and amendments proposed to business before this Association shall be submitted in writing.

[We report the adopted report of the Committee on Business.]

1. We recommend that this organization shall be called the "Association of Medical Officers of the late Confederate Army and Navy."

2. The object shall be the collection and preservation of the medical records and statistics of the late Confederate army and navy, and the collection and publication of such scientific facts as may be useful to the Association and the medical profession ; the preparation and publication of biographical notices of deceased members of the medical staff, and the cultivation of social and friendly intercourse.

3. The officers shall be a President and Vice-President at Large, and one Vice-President for each State represented in the said army, a Secretary and Assistant Secretary and a Treasurer, who shall be elected annually.

4. The meetings shall take place annually at such time and place as may be determined by the body.

5. There shall be an annual assessment of such sum as may be determined by the body.

6. There shall be the following standing committees: Committee on Hospital Service; Committee on Field Service; Committee on Naval Service; Committee on Necrology; Committee on Miscellaneous Service; Committee on Hygiene.

7. There shall be a special committee, consisting of three members and the Secretary and Assistant Secretary, with discretionary powers, of which committee the Secretary shall be chairman, to whom shall be referred all matter for publication.

Dr. Robert Battey offered the following, which was adopted:

Resolved, That a committee of three be appointed to prepare and submit to the next meeting of the Association a form of permanent constitution and by-laws for the government of the association.

Dr. S. H. Stout moved to make it a committee of five. The amendment was accepted, and the resolution adopted.

The chair appointed Drs. Robert Battey, W. H. Cumming, J. P. Logan, Ed. D. Newton, and H. V. M. Miller.

On motion of Dr. W. A. Green, the resolution offered by Dr. W. F. Westmoreland, as to who should be permitted to register as members of this association, was reconsidered.

Dr. Green then proposed that only the commissioned medical officers of the Confederate States should be entitled to membership, which motion elicited an animated discussion as to the distinction between regular and contract surgeons, participated in by Drs. Robert Battey, J. M. Johnson, and S. H. Stout, when, on motion of Dr. Ed. D. Newton, Dr. Green's motion was laid on the table.

On motion of Dr. S. H. Stout, a committee of three was ordered, to whom all resolutions should be referred. The Chair appointed Drs. S. H. Stout, Robert Battey and W. A. Green.

Dr. J. Hendree offered the following, which was adopted:

Resolved, That the members present be requested to communicate to the secretary the names and addresses of such Confederate surgeons as they know to be still surviving.

Dr. S. H. Stout offered the following, which was referred to special committee on resolutions :

That a committee, consisting of five members, be appointed to prepare an address to the members of the medical staff of the late Confederate army and navy, explaining the objects of this Association, and recommending a plan for local organizations of State and county associations auxiliary to this.

Dr. E. J. Roach moved that the editors and reporters of the city papers, and also that the physicians of the city, be invited to seats on the floor, which was carried.

Dr. E. D. Newton wished the subject of a place for the archives of the Association to be considered, and that the State authorities be consulted, which was agreed to.

On motion, the meeting adjourned until 9 A. M., Thursday, 21st.

Second Day.—Dr. H. F. Campbell, Vice-President, in the chair.

A telegram from Dr. Hunter McGuire, Richmond, Va., was read. He regretted that illness in his family prevented his attendance, and invited the Association to select Richmond as the place of next annual meeting, [which invitation we are sure is most heartily endorsed by the profession and good citizens of Richmond, and by Virginians generally.]

Dr. S. H. Stout called for the consideration of the resolution offered yesterday by himself, in regard to the preparation of an address to the late medical staff of the Confederate States army and navy, &c., which resolution he briefly explained.

Dr. W. F. Westmoreland wished to know whether the resolution designed this body to be a representative one. He favored semi-annual meetings in the States.

Dr. H. F. Campbell (Dr. W. A. Green taking the chair for the time) favored the resolution of Dr. Stout, as a means of stimulating the medical men who were connected with the Confederate service to a proper interest in this organization.

Dr. E. J. Roach opposed the suggested State meetings, but favored the resolution in other respects.

Dr. Andrews agreed with Dr. Roach.

Dr. Stout then proposed, as an amendment, to strike out all after the word "Association", (page 177, line 9), and insert "and asking their co-operation."

Dr. W. H. Cumming suggested the propriety of including in the address a series of questions seeking the information desired of non-attending surgeons, &c.

Dr. J. P. Logan read a letter addressed to Surgeon-General S. P. Moore, from Dr. John M. Johnson, President of the Savannah Association of Medical Officers of the late Confederate States army and navy, expressing the hearty co-operation of that body, and stating that that Association had collected some valuable statistics and information in relation to the late war, which communication was received.

The Chair stated that Dr. Stout's resolution was under consideration.

Dr. J. P. Logan favored the recommendation of organizing State and local associations auxiliary to this.

Dr. E. J. Roach favored the adoption of the amendment proposed by Dr. Stout himself.

Dr. H. V. M. Miller, as a further amendment, moved to strike out the word "auxiliary," and to insert instead, "for the furtherance of these objects."

Further verbal amendments were proposed. The vote was taken, and the resolution was so amended as to read :

Resolved, That a committee, consisting of five members, be appointed to prepare an address to the medical staff of the late Confederate States army and navy, explaining the objects of this Association, and recommending a plan for the organization of State and county associations for the furtherance of these objects.

Dr. J. P. Logan read a telegram from Dr. D. Y. Yandell, Louisville, Ky., expressing his hearty co-operation, and pledging himself to promote the interests of the Association.

Letters of similar import from Drs. J. T. Gilmore, Mobile, Ala., and C. B. Leitner, Geneva, Ga., were read.

Dr. W. T. Goldsmith offered the following :

Resolved, That the press of the Southern States be requested to publish the proceedings of this Association, or as much of the proceedings as shall call the attention of all ex-Confederate medical officers to the existence of the organization, and ask their co-operation in furnishing documents, papers and unrecorded facts of the same.

Dr. H. V. M. Miller thought it enough to ask for the publication of the address of the Committee.

Dr. Andrews, as a substitute, offered the following, which was adopted :

Resolved, That the newspapers throughout the late Confederate States be requested to publish the address of the medical officers of the army and navy of the late Confederate States, which will be issued by the committee appointed for that purpose.

Dr. W. F. Westmoreland offered the following, which was adopted :

Resolved, That a committee of three be appointed to confer with the Surgeon-General of the United States army in reference to the captured archives of the medical department of the ex-Confederate States, as to the extent that they can be used by this body, and all other matters pertaining to the publication of the same, and report the result of the conference at the next meeting of this body.

Drs. W. F. Westmoreland, J. P. Logan, and W. H. Cumming were appointed.

Dr. W. T. Goldsmith offered the following, which was adopted :

Resolved, That all ex-Confederate medical officers are hereby requested to furnish their names, with their rank and period of same, to Dr. S. H. Stout, Atlanta, Ga., Secretary of this Association, for enrollment as members, with the understanding that they shall be considered members upon such enrollment.

Dr. S. H. Stout tendered to the Association in trust the records of the Hospital Department of the Army of Tennessee, provided that a safe place be secured for their deposit, etc., which was ordered to be recorded.

Dr. J. P. Logan tendered the Confederate Medical Record,

belonging to the late A. J. Ford, M.D., Medical Director of the Western army, upon condition that proper steps be taken for their preservation and utilization by this Association.

Dr. E. D. Newton stated that Gov. Smith had kindly tendered the use of a room in the Capitol building for the deposit of archives, &c.

On presentation by Dr. G. G. Crawford, the following was adopted :

Resolved, That the tender of the valuable records and papers by Drs. Stout and Logan be accepted, and that the thanks of the Association, and an expression of our high appreciation be tendered to Drs. Stout and Logan.

On motion of Dr. W. F. Westmoreland, a committee of five was appointed to select the time and place of the next meeting. Drs. W. F. Westmoreland, J. P. Logan, Johnson, W. H. Cumming, and E. D. Newton were appointed.

The committee selected RICHMOND, VIRGINIA, *as the place, and the FIRST WEDNESDAY IN JULY [7th] 1875 as the time for the next meeting.*

On presentation by Dr. W. A. Green, it was

Resolved, That the medical officers of the United States army and navy who resigned their commissions to join the Confederate service, be registered, upon their application for membership, as honorary Vice-Presidents of this body.

On presentation by Dr. E. D. Newton, it was

Resolved, That the Vice-Presidents of each State be authorized to appoint an executive committee to assist in procuring reports, organizing auxiliary societies, and promoting the objects of this Association.

On motion of Dr. S. H. Stout, Drs. E. J. Roach, H. V. M. Miller, and W. A. Green were appointed a committee to recommend the amount of assessment on each member to defray expenses. The committee recommended one dollar, which was adopted.

Adjourned till 3 P. M.

Afternoon session was called to order by Vice-President H. F. Campbell.

On motion of Dr. W. T. Goldsmith, a committee of three was

appointed to notify (officially) the President and Vice-Presidents of their election. Drs. W. T. Goldsmith, S. H. Stout and J. P. Logan were appointed.

Dr. S. H. Stout offered the following as a suggestion to the Committee on Constitution and By-Laws, which was adopted:

Resolved, That the Committee on Constitution and By-Laws be instructed to take into consideration the feasibility of so organizing the Association, as a whole and in its various divisions, as to preserve the *esprit du corps* of each branch of the service, and of each department thereof, and of so arranging the work of the Association and of local organizations co-operating with it, that the labor and contribution of officers of one military department shall not be confused with those of any other—the infantry and artillery service with the cavalry arm; those in a given brigade, division or corps with those in another; the hospital service with the field service; nor the work of the jurisdiction of one medical directorship with that of another.

By request, the following was added:

And further, that it is the sense of this Association that the records of the Army and Navy Medical Examining Boards should be presented, and their archives preserved.

On presentation by Dr. E. D. Newton, it was

Resolved, That Dr. J. S. Dorsey Cullen, Medical Director of Longstreet's Corps, be requested to prepare a sketch of the organization and services of the medical department of the Army of Northern Virginia, to be delivered at Richmond, Va., on the first Wednesday in July, 1875.

This was amended by including:

Resolved, That Dr. W. A. Carrington,* Medical Director of the Hospitals at Richmond, Va., be requested to prepare a similar paper, to be delivered at the same time.

On presentation by Dr. W. F. Westmoreland, it was

Resolved, That Dr. Ed. Flewellen be requested to prepare a similar paper on the Field Service of the Western Army; and that Dr. S. H. Stout be likewise requested to prepare one, detailing the organization of the Department of Tennessee; and

* See to-night's session, page 183.

that Dr. A. M. Talley prepare a report of the Army Medical Examining Board.

In compliance with a request made of him, Dr. H. F. Campbell related some of his medical experience in the Army of Virginia. He remembered having treated a case of intermittent fever with oil of turpentine—there being at the time no quinine in the Department. The result was successful. The remedy seemed to increase the renal secretion, and thus eliminated the poison. He also related the case of a young man wounded in the calf of the leg—the ball passing between the tibia and fibula. Severe inflammation ensued, with threatened gangrene; there was a dirty-looking sanious discharge, with hemorrhage from the tibial artery. The question of amputation of the limb, or ligation of the artery, was discussed with the late Dr. O'Keefe. Ligation of the femoral artery in Scarpa's triangle was decided on. The patient gradually improved, with, at length, complete recovery of the use of the limb. He detailed several other cases of ligation of the main arterial trunks after gunshot wounds, terminating in recovery. He then discussed at some length the nature, causes, treatment, &c., of inflammation, which was listened to with marked attention.

On presentation by Dr. James J. Winn, it was

Resolved, That the committee appointed to prepare the address to the medical officers of the late Confederate States be instructed to incorporate in that address an appeal to the medical officers of the Confederate States army to make out, each officer for himself, a report of his command, whether regiment or division, and forward the same to the chief medical officer of his department or corps.

On presentation by Dr. W. A. Green, it was unanimously

Resolved, That an abstract of Dr. H. F. Campbell's original ideas on inflammation and its treatment be furnished the Secretary for publication in the proceedings of this body, and he be requested to elaborate the same, and read it before the next meeting of the Association.

On presentation by Dr. E. D. Newton, it was

Resolved, That the Committee on Hospital Service be instructed to obtain all information in regard to the results of the

use of the anterior splint of Dr. Nathan R. Smith in fractures of the lower extremities in Confederate Hospitals.

In accordance with Art. 6 of the Report of the Committee on Business (page 176), the President announced the appointment of the chairmen of the respective committees, who are allowed to choose their own assistants.

Committee on Address—Dr. S. H. Stout, Atlanta, Ga.

Hospital Service—James B. McCaw, Richmond, Va.

Field Service—D. W. Yandell, Louisville, Ky.

Naval Service—W. H. Spottswood, Pensacola, Fla.

Necrology—J. P. Logan, Atlanta, Ga.

Miscellaneous Reports—E. D. Newton, Athens, Ga.

Hygiene—W. H. Cumming, Atlanta, Ga.

On presentation by Dr. W. A. Green, it was

Resolved, That a committee of five on membership be appointed. Dr. J. S. D. Cullen, Richmond, Va., was appointed chairman, with power to select his assistants.

Dr. E. D. Newton read a tribute to the memory of Dr. La-Fayette Gill, of the Army of Tennessee, which was referred to the Committee on Necrology.

On presentation by Dr. W. A. Green, it was

Resolved, That Drs. Eldridge, Stout and Barnes be appointed a committee to collect the facts in regard to the medical and sanitary history of Andersonville prison.

On motion of Dr. S. H. Stout, the names of the Faculty of the Medical College of Louisiana were added to the list of members.

Adjourned until 8.30 P. M.

The night session was called to order at 9 o'clock, Dr. Campbell in the chair.

Dr. J. P. Logan remarked that Dr. W. A. Carrington was dead, and moved that Dr. Charles H. Smith, Richmond, Va., be appointed to prepare a sketch of the organization, &c., of the hospitals in Richmond, Va. Adopted.

Dr. H. V. M. Miller stated that a medical officer at the post of Savannah, in July, 1862, used turpentine as a febrifuge with good results.

Drs. Hall and Green related some facts regarding the use of turpentine as a febrifuge at an earlier period.

Dr. H. F. Campbell made further remarks as to the value of turpentine in the treatment of intermittent and paroxysmal fevers.

Dr. E. D. Newton presented the following for Dr. W. A. Carswell, which was adopted:

Resolved, That Dr. W. H. Canning be requested to prepare a paper on Vaccination—its results, normal and abnormal, as manifested in the army of the Confederate States—to be presented at the meeting in Richmond.

On presentation by Dr. Knott, it was

Resolved, That the Committee on Field and Hospital Service be instructed to report at the meeting in Richmond, upon the results of indigenous remedies in the late Confederate States.

The usual votes of thanks were made, after which the meeting adjourned *sine die*.

MEDICAL SOCIETY OF THE STATE OF NORTH CAROLINA.*

The 21st annual session of this Society convened in Miller Hall, in Charlotte, 11 A. M., Tuesday, May 21st, 1874—the President, Dr. W. A. B. Norcum, Edenton, in the chair; Dr. James McKee, Raleigh, Secretary. Prayer by Rev. Dr. Miller. Governor Z. Vance welcomed the Society to the hospitalities of the city in his usual felicitous style.

Drs. R. J. Hix, P. E. Hines and J. J. Summerell were appointed a committee on credentials. They reported a presence of 40 members; after which, during the session, from 20 to 25 others came in.

Honorary member, Dr. J. H. Dillard, was invited to participate in the proceedings.

The evening session was occupied with the reception of reports from County Associations. That from New Hanover county mentioned several cases of interest, and also remarked upon the refusal of the coroner and county commissioner to pay Dr. Geo. F. Lucas \$100 for a *post mortem* examination of a body which had been buried for six weeks, and that a suit was now pending

* Though we attended this meeting as one of the fraternal delegates from the Medical Society of Virginia, we are unable to give full reports of the proceedings—due to the loss of papers and memoranda, which have not as yet (May 29) been recovered.—ED.

to recover the amount, which met with the sympathy of the New Hanover Association.

The Secretary read a report of his correspondence with delinquent members. The names of those who refused to pay their dues were ordered to be dropped from the roll.

The resignations of Drs. P. T. Henry, W. R. King, William Strudwick, P. A. Barrier and J. W. Sherrod were presented and accepted.

Dr. John McDonald presented several papers—one on a case of *Utero-Vesico-Vaginal Fistula*; a case of *Penetrating Gunshot Wound of the Abdomen—Recovery*; a case of *Uterine Fibroid*; and a case of *Traumatic Tetanus, caused by Gunshot Wound*. Referred to Committee on Publications.

Dr. Chas. Duffy reported a case of *Endostitis of the Superior Maxillary Bone*; one of *Vesico-Vaginal Fistula* beneficially treated by *Carbolized Cotton-wool*; one showing the *Value of Quinine in Urinary Infiltration*; one on the *Value of Aspiration in Latent Pleurisy*. Referred to the Committee on Publications.

Dr. W. J. H. Bellamy read for Dr. Thos. F. Wood (who was unavoidably absent), the report of a *Case of Poisoning by Arsenious Acid*. Referred to Committee on Publications.

Dr. W. W. Lane reported the *History of Five Cases of Asphyxia due to Inhalation of Carbolic [?] Acid Gas*. Referred to Committee on Publications.

After appointment of Committee on Nominations, the meeting adjourned until to-morrow morning.

The second day's proceedings were occupied chiefly with matters of interest to the Society. The Treasurer, Dr. A. T. Bahnsen, after speaking of the great amount expended for advertising the time and place of meeting, offered a resolution, which was adopted, to the effect that future meetings of the Society be published in one central newspaper, and that the Secretary be required to send a postal card notice to each member, giving him proper information, &c.

Most of the morning's session was occupied with the reading of papers. Among them was one by Dr. R. L. Payne, Lexington, on *Puerperal Eclampsia*, to which we would call the special

attention of readers of the volume of Transactions when published. But trusting alone to memory of what was told us about it, we will not attempt a synopsis of it.

The Committee on Nominations of officers for the ensuing year recommended Dr. J. W. Jones, Tarboro', for President; Dr. James McKee, Raleigh, for Secretary, and Dr. H. T. Bahnsen, Salem, for Treasurer. The report was received, and the gentlemen were elected to the offices named.

The following were appointed as fraternal delegates to attend the fifth session of the Medical Society of Virginia, to convene in Abingdon, at 11 A. M., Tuesday, October 11th, 1874: Drs. C. T. Murphy, Clinton; H. T. Bahnsen, Salem; Willis Alston, Littleton; R. L. Payne, Lexington; J. W. Jones, Tarboro, and W. T. Cheatham, Henderson.

The evening's session was taken up principally with the annual address by Dr. A. B. Pierce. It was spoken of by those who heard it as an exceedingly able and elegant production.

[The object of these annual addresses being principally intended for the public, in order that the people may be instructed and interested in medical matters, it is to be hoped that the profession of the cities in which similar addresses are to be delivered hereafter, will use every exertion to get the citizens interested in this part of the proceedings, and thus secure large assemblages. These occasions are the only opportunities the profession has of giving public expression to its wants, and they should be improved.]

After the address, the Society was invited to a banquet prepared by the resident physicians and citizens. A pleasant social hour or two was spent in giving toasts, which met with happy responses in every instance.

On the *third day's session* being called to order, Dr. Geo. A. Foote moved that the delegates from the Medical Society of Virginia, whom he heard had just arrived, be waited on and invited to participate in the proceedings of the session, &c. Carried. Drs. G. A. Foote and F. J. Haywood, Jr., were appointed.

Drs. Thos. P. Atkinson (Hon. Fel., Med. Soc. of Va.), Henry Latham, and Landon B. Edwards were introduced by the committee as the fraternal delegates present from the Medical So-

ciety of Virginia. They were warmly welcomed to seats, and invited to participate in the deliberations of the session in a few appropriate remarks by Dr. C. J. O'Hagan.

Dr. T. P. Atkinson replied in a most felicitous style, in which he paid a high and just tribute to the old North State and her sons, both of the legal and medical profession, sincerely hoping that the ties of friendship and union now existing between the two societies may always continue, &c.

The President announced that reports of cases, communications, &c., were in order.

Dr. Thomas Duffy reported two cases of suspended animation. The paper was referred to the Committee on Publication.

One of the cases reported was occasioned by a pea lodging in the windpipe of a boy aged 8 years. In opening the larynx by tracheotomy, all of a sudden there appeared to be a cessation of vital action, which Dr. Duffy restored by means of a female catheter placed in the opening recently made, and from his own lungs carried on artificial respiration—his assistant, Dr. Dickson, expelling the air from the lungs with regularity as he inflated them. Every one had despaired of all hope of saving the life of the child, but by persistent efforts the pea was finally expelled, and the boy is now well and hearty.

Dr. Charles Duffy had seen a case nearly similar to the one described, the obstacle being a grain of corn, which he thinks might have been removed and life saved, had the operation of *tracheotomy* been performed.

Dr. Hines, from the Committee on Credentials, submitted a supplementary report recommending for membership Drs. E. S. Foster, Louisburg; J. B. Hall, Scotland Neck; J. M. Richardson, Lincolnton; A. A. Hill, Lexington; John Fink, Concord; T. J. Moore, Charlotte, and S. J. Gilmer, Cabarrus. Adopted.

Dr. Joseph Graham, on the part of Col. Thomas, Superintendent of the Military Institute, extended an invitation to the Society to visit his Institute, &c., which, on motion of Dr. Murphy, was accepted.

On motion of Dr. F. J. Haywood, Jr., the installation of officers was proceeded with. Drs. F. J. Haywood, Jr., and C. J. O'Hagan were appointed a committee to conduct the President to his seat.

Dr. J. W. Jones, upon taking the chair, returned his thanks to the Society for the honor conferred, etc.

Dr. W. A. B. Norcom, the retiring President, after thanking the Society for the uniform kindness he had received at the hands of members as the presiding officer, proceeded, instead of the usual valedictory address, to read an essay on *Hemorrhagic Malarial Fever*, with special reference to the hæmaturic form. This paper, which will be published in full in the volume of Transactions, we look upon as a most valuable contribution to the history of this recently noticed disease, which has been prevailing with so great fatality in some of the malarial sections as to be styled the "king of terrors." He contends that the disease is but a malignant form of malarial fever, and consequently strenuously enforces the importance of the abortive treatment by large doses of quinine—under which treatment in nine cases the mortality was *nothing*. He condemns in no unsparing terms the folly of the so called *preparatory* and *antiphlogistic* plans of treatment.

On motion of Dr. O'Hagan, the paper was ordered to be published, and a vote of thanks returned to the author.

It being in order to select time and place of next meeting, it was, after much discussion, ordered that the next annual meeting shall convene on the third Wednesday in May (19th), 1875, in the town of Wilson.

Dr. Charles Duffy announced that the Eastern North Carolina Medical Society had been organized as an auxiliary to the State Society—due mainly to the efforts of Dr. H. O. Hyatt.

After voting an annual salary to the Secretary, and after the passage of the usual resolutions of thanks, the session adjourned *sine die*.

Book Notices. &c.

A Practical Treatise on the Surgical Diseases of the Genito-Urinary Organs, Including Syphilis. Designed as a Manual for Students and Practitioners. With Engravings and Cases. By W. H. VAN BUREN, A. M. M.D., Professor of the Principles of Surgery, with Diseases of the Genito-Urinary

System, and Clinical Surgery, in Bellevue Hospital Medical College, etc.; and E. L. KEYES, A. M., M. D., Professor of Dermatology in Bellevue Hospital Medical College; Surgeon to the Charity Hospital, Venereal Division, etc. New York: D. Appleton & Co., 1874. pp. xv.—672. 8vo. Cloth. Price \$5. For sale by West, Johnston & Co., Richmond.

This is a book that the profession of America has long been needing, and it must become before long the standard text book of the colleges of the land. It is also admirably suited to the wants of the busy practitioner.

Were we to write pages, it would yet all be summed up in the recommendation that every practitioner, unless he prefers exhaustive monographs on each of the subjects treated, who expects to meet with diseases of the genito-urinary system, should at once provide himself with this eminently practical work, emanating as it does from authors of marked distinction. "Its object is to present to the student and general practitioner a succinct account of the nature and treatment of the diseases incident to the genito-urinary organs as they are encountered in private and hospital practice. * * * * * The literature of this department of surgery has been exhaustively studied with the purpose of reproducing every fact of practical value." "The plan of the work is based upon an anatomical classification of the tissues and organs of which the diseases and deformities form the subjects of description."

But lest our great pleasure in announcing this work might lead some to look for perfection in it, we must state that, like everything else that is human, it has its imperfections. For example, the chapters on *Stricture of the Urethra* might have been brought better up to the times had the authors had the opportunity of availing themselves of the researches of some of the most recent investigations on the subject. As an illustration, regarding the number of strictures in any one urethra, we find that the authors have evidently done nothing more than avail themselves of the systematic works already published, giving no estimate of their own, as if they had no experience on the subject. The well-known case of Leroy d'Etiolles with eleven strictures is mentioned; but as if to throw some doubt upon the

correctness of the diagnosis, the authors add “—the latter upon a living subject.” Immediately following this is the statement, “Thompson has seen three—at most four—and believes that if more are found they must be considered as irregular contractions of the same stricture.”

We have never been able to understand why the world of medical men has come to award to Sir Henry Thompson an oracular right in this matter of fact. It is not that we underestimate the greatness of this author in his specialty. But at the same time there are others of equal greatness, and just as capable of testifying as to matters of fact of their own observation. Sir Henry proves nothing as to the possible number of strictures in affirming that *he* has never seen more than three strictures in one urethra. If Dr. Otis, of America, has been able to demonstrate, as he lays plausible claims to having done, that he has seen a patient with as many as *fourteen* distinct strictures—purely a question of fact—what right has Sir Henry to throw doubt upon the observation?

Beyond the observations of men which we are willing to credit, we can see no *reason* in the apparently empirical statement of Sir Henry, whose views, because of his otherwise justly attained eminence in the profession, must prejudice the minds of students who have not the opportunities of making observations of their own. Since stricture may occur in any portion of the urethra, from the meatus to the prostatic portion, and since all authorities agree that there may be as many as three, we can appreciate none of the reasons which have been stated in opposition why there may not be, under certain conceivable circumstances, four, or five, or *fourteen*, or *even more*, strictures—so long as there is space enough left for a stricture to exist.

In the treatment of obstinate *Chronic Cystitis*, after removal of the cause for the continuance of the condition as far as practicable, and after the failure of other less uncomfortable means, we would call the attention of the reader to the plan of drainage suggested by Dr. Hunter McGuire in the April number of the *Monthly*. Though he reports only one case in which he had at the time resorted to the measure, the *rationale* of the use of the tube is based on good principles, and the result in that case was good.

In the chapter on *Diseases of the Ureters*, we find nothing as to symptomatology, treatment, &c. As it stands in the book, we see no use for it, unless to remind the reader that there are such ducts in existence, and that they may be the seats of anomalies, dilatations, strictures, &c. On the whole, we think this a worthless chapter. By the by, we were struck with the use of a word in this chapter—*functionate*—"in which the kidneys cannot *functionate*." The word, it is needless to say, is not in Webster's or Worcester's Unabridged.

In the chapter on *Inflammation of the Urethra*, the authors very rightly advise the use of the terms *gonorrhœa* and *urethritis*—not because of any marked pathological differences, but simply to distinguish between that inflammation which is due to illicit intercourse between the sexes, and that which is produced from other causes, which in no way impeach the virtue of the unfortunate subject.

The authors hold to the duality doctrine of chancroid and syphilis. We observe nothing in these chapters requiring special remark, unless it be that the subjects are presented in an intelligible and highly practical manner.

Prof. H. D. Noyes, M. D., adds a chapter on *Syphilitic Diseases of the Eyes*; and the authors make their special acknowledgments to Dr. St. John Roosa for assistance in preparing the chapter on *Syphilis of the Ear*.

Messrs. Appleton & Co. have gotten up the work in handsome style and finish.

Other NOTICES OF BOOKS, &c., are crowded out of this number. We would, however, call favorable attention to Dr. Wm. B. Carpenter's work on *Mental Physiology*, published by Messrs. D. Appleton & Co., and for sale by Messrs. West, Johnston & Co.; to *The Christian Age*, a non-sectarian and unsectional family paper, edited by Rev. Chas. F. Deems, D.D., New York, of special value to the profession on account of the trustworthy notices given of late medical publications—this department being under the charge of Francis M. Deems, M. D.; *The Popular Science Monthly* for May and June, with its usual quota of excellent articles; the *Reports of the State Boards of Health of Michigan and California*, &c.

Virginia Mortuary Statistics for April, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.					
Presidents of Boards		Dr. J. G. Cabell.				Dr. J. B. Whitehead.				Dr. R. S. Payne.					
		White.		Colored.		White.		Colored.		White.		Colored.			
Population.....		33,452		27,213		12,099		8,000		6,500		6,500			
Sex.....		M. F.		M. F.		M. F.		M. F.		M. F.		M. F.			
Number of deaths.....		19	20	32	26	8	12	1	10	3	4	7	9		
Number still born.....		7		9		Color not given, 2				-		3			
AGES. Ages unknown not calculated.	Under 1 year.....	5		18		Color not given, 11				Color not given, 9					
	“ 3 years.....	4		2		“ “ “ “ 2				“ “ “ “ 0					
	“ 10 “.....	3		7		“ “ “ “ 0				“ “ “ “ 3					
	“ 20 “.....	3		3		“ “ “ “ 1				“ “ “ “ 1					
	“ 30 “.....	5		5		“ “ “ “ 8				“ “ “ “ 4					
	“ 50 “.....	5		6		“ “ “ “ 6				“ “ “ “ 3					
	“ 70 “.....	6		7		“ “ “ “ 2				“ “ “ “ 1					
	“ 80 “.....	5		4		“ “ “ “ 2				“ “ “ “ 0					
	“ 100 “.....	2		5		“ “ “ “ 2				“ “ “ “ 1					
	Over 100 “.....	.....		.....		“ “ “ “ 0				“ “ “ “ 0			
Most frequent Causes of Death.	Accidents, &c.....	.....		1		1		.....		Color not given, 1			
	Birth, Premature.....	.....		2		3		.....		“ “ “ “ 0			
	Brain, Softening.....	1		.....		2		.....		“ “ “ “ 0			
	Bronchitis.....	.....		.....		.....		1		“ “ “ “ 0			
	Consumption.....	3		7		2		5		5					
	Convulsions.....	.....		3		.....		.....		Color not given, 3			
	Diarrhoea.....	1		1		1		.....		“ “ “ “ 0				
	Diphtheria.....	1		1		.....		.....		“ “ “ “ 0			
	Enteritis.....	2		1		.....		.....		“ “ “ “ 0			
	Epilepsy.....	.....		.....		1		.....		“ “ “ “ 0			
	Fever, Intermittent & Remit.	1		1		.....		.....		“ “ “ “ 0			
	“ Puerperal.....	1		.....		1		1		“ “ “ “ 0				
	“ Typhoid.....	4		.....		.....		.....		“ “ “ “ 0			
	Heart Diseases.....	2		4		1		.....		“ “ “ “ 0				
	Ileus, Intussusception, &c.....	.....		.....		1		1		“ “ “ “ 1			
	Inanition, Old Age, &c.....	5		4		3		2		“ “ “ “ 0					
	Liver, Malignant Tumor of.....	.....		.....		.....		1		“ “ “ “ 0			
	“ Congestion.....	.....		.....		1		.....		“ “ “ “ 0			
	Lung, Abscess, Congestion.....	.....		1		.....		.....		“ “ “ “ 1			
	Mania, Acute.....	.....		.....		.....		.....		“ “ “ “ 1			
	Meningitis, Cerebro-Spinal.....	2		.....		.....		.....		“ “ “ “ 1			
	“ Tubercular.....	2		2		1		1		“ “ “ “ 0					
Pneumonia.....	2		1		3		2		“ “ “ “ 1						
Rectum, Imperforate.....	.....		.....		1		.....		“ “ “ “ 0				
Syphilis.....	.....		.....		.....		1		“ “ “ “ 0				
Tetanus.....	.....		.....		1		.....		“ “ “ “ 0				
Trismus Neonatorum.....	.....		3		.....		.....		“ “ “ “ 0				
Whooping Cough.....	2		5		.....		.....		.....	
		Census taken in February, 1874.						Population is estimated.				Population is estimated.			

125 less mortality in Richmond, quarter ending April 30, 1874, than same quarter 1873.
The sanitary condition of each city is good.

VIRGINIA MEDICAL MONTHLY.

VOL I.

RICHMOND, JULY, 1874.

No. 4.

Original Communications.

ART. I.—*Chronic Vaginitis*. By GEORGE T. HARRISON, M.A., M.D., Assistant Surgeon to the New York State Woman's Hospital, New York (city).

Synonyms: Chronic Colpitis; Chronic Vaginal Catarrh.

No physician who has been consulted in regard to this affection, and who has gained some knowledge of the difficulties in the way of its successful treatment, will despise any hint which may assist him in a better comprehension of its pathology and therapeutical indications. I have found the disease particularly rebellious to treatment when exhibiting that character which has given rise to the term "granular vaginitis." Barnes* evidently had this condition in mind when he speaks of "a chronic form, not very uncommon, * * * marked by thickening of the walls of the vagina."

As so many errors are propagated in respect to the normal anatomy of the mucous membrane of the vagina, it will be necessary to correct them before proceeding further. Its inner surface is usually described as being thrown into folds or rugæ, running transversely from the anterior and posterior columns. Henle,† the greatest living anatomist, thus describes this feature of the vaginal mucous membrane: "Besides the columnæ we have just described, two other kinds of elevations are found on the inner surface of the vagina; in the first place, dense transverse elevations or crests—perceptible to the naked eye—incor-

**Vide* Clinical History of Medl. and Surgl. Dis. of Women, page 741.

†*Vide* Handbuch der Systematischen Anatomie des Menschen—Eingeweidelehre—p. 467, 2te. Aufl.

rectly described as wrinkles (*rugæ*) or folds (*plicæ*); and secondly, microscopical papillæ, over which, when they are not abnormally enlarged, the epithelium forms a smooth investment. The elevations perceptible by the unaided eye appear in two varieties, by which the vaginal mucous membrane acquires just as individual a stamp as the mucous membrane of the tongue by its different papillæ. One of the varieties forms flat tubercles from 1 to 3 mm.* in diameter, with the base essentially round, but the form of which, by mutual pressure and the partial coalescence of some, is variously changed. The other variety appears in the form of sharp crests (*cristæ*) covering one another, in the direction from above downwards, in an imbricated manner, the free edges of which show an undulating outline or angular serrature, often divided by deep incisions, and provided with fine, teat-like processes as long as 0.6 mm. A medium form, between these two varieties, exhibits obtuse transverse elevations, looking as if they had originated out of blended tubercles. Tubercles and crests occur by the side of one another in the same vagina, and then the tubercles appear mostly on the side of the crests, as if they were offshoots from them; yet, there are cases where the one or the other form is exclusively found." Again, according to Gray,† the mucous membrane is provided with mucous glands and follicles, especially numerous in the upper part. This statement is repeated by a number of writers, both anatomists and gynecologists. Henle‡ says the vagina possesses no secreting glands, and is only exceptionally provided with glands, like the solitary glands of the intestine.

This statement of Henle's is confirmed, in the main, by the most eminent anatomists and microscopists of recent times, including Luschka§, Hyrtl||, Aeby¶, Kölliker**, Frey††, of Ger-

*To those not familiar with the metrical system of measures, it is necessary to state that a millimetre is 1-10 of a centimetre, and that 1 inch = 2.539954 centimetres.

†*Vide* Gray's Anatomy, 3d English edition, page 722.

‡Eingeweidelehre, 2 te aufl., p. 468.

§Die Anatomie des Menschlichen Beckens, s. 387.

||Handbuch der Topographischen Anatomie, s. 182.

¶Lehrbuch der Anatomie, s. 638.

**Handbuch der Gewebelehre, s. 537.

††Handbuch der Histologie, u. Histochemie 4 te. aufl. s. 567.

many, Robin* and Sappey†, of France. Tyler Smith‡ and M. Courty§, among gynæcologists, who have especially investigated the subject, failed to discover these glands. In fact, the researches of M. Courty, who has written by far the ablest work on the diseases of females which the French literature has to show, would seem to be conclusive.

Pathogenesis and Etiology.—Chronic catarrhal inflammation of the vagina consists in a relaxation of the mucous membrane, with frequent obliteration of the transverse elevations (so called rugæ), the walls of the vagina being more yielding than they are in a normal condition—especially toward the fornix vaginæ—in papillary hypertrophy to a greater or less degree, with the secretions of a thin, milky, opaque or yellowish discharge, sometimes very profuse. The hypertrophy of the papillæ gives rise to slight elevations, projecting above the general surface of the vaginal mucous membrane, varying in size from a millet seed to a small pea. They have been erroneously regarded as swollen mucous follicles, and, under this impression, Robert|| wrote a memoir upon inflammation of the mucous follicles of the vagina, and Deville¶ mentions as a distinct form of inflammation, *la vaginite granuleuse*, (Ricord's *Psorélytrie*). Oldham also speaks of a follicular disease of the vagina. One of the latest writers on the subject, Dr. T. G. Thomas, of this city, in his very excellent practical work on *Diseases of Women*, though quoting Dr. Bumstead to the contrary, describes the affection from the same erroneous point of view. "This variety of the disease appears," he remarks, "to bear the same relation to simple vaginitis that follicular vulvitis does to the purulent form of that disease." The preceding anatomical considerations sufficiently refute these errors.

*Dictionnaire de Nysten, p. 1317, 10 e. edition.

†Anatomie Descriptive, t. III, p. 681.

‡The Pathology and Treatment of Leucorrhœa, p. 6.

§Traite Pratique des Maladies de L'Uterus, par A. Courty. Dieuxieme edition, p. 60.

||Robert, Memoir sur l'Inflammation des Follicules Muqueux du Vagin ; Arch. Gen. de Med., 1841.

¶Memoir sur la Vaginite Granuleuse, Arch. gen. de Med., 1844.

**A Follicular Disease of the Vagina, London Lancet, 1846, May.

Chronic vaginitis either develops out of the acute form, or accompanies chronic inflammation of the uterus and other pathological changes of the organs of reproduction—in a word such conditions of the organs of reproduction as occasion a chronic hyperæmiâ of the vaginal mucous membrane. Besides pregnancy, I have observed the disease in connection with fibroid tumors of the uterus, chronic endometritis, flexions of the uterus, and chronic perimetritis. In most of these affections there is more or less discharge from the uterine mucous membrane, which, as a source of irritation to the vaginal mucous membrane, may have some bearing upon the ætiology. Chlorosis, scrofula, and the acute exanthemata, too, are not infrequently causes of the affection.

A very interesting field of investigation has been opened by recent researches, especially those of Haussman*, in regard to the existence of parasites in the vaginal canal, and their relation to chronic vaginitis. For some time, through the labors of Donn , K lliker and Scanzoni, and Hennig, we have been familiar with the fact that an animal parasite, the *Trichomonas vaginalis*, is often found in the vagina, especially in women suffering with pathological secretions of that canal. But besides the *Trichomonas*, vegetable parasites are found in the vaginal mucous—*Vibrios*, *Bacteri *, *Leptothrix vaginalis* and *Oidium albicans*. Haussman made successful experiments in transplanting from one vagina to another the *Leptothrix vaginalis*, as likewise with *Oidium albicans*. When we reflect upon the facility with which vaginitis is propagated in hospitals and clinics where the same instruments—specula, sponges, &c.—are used for different patients, we must admit that the theory that mycosis plays an important r le in the ætiology of this affection is not without plausibility.

Symptomatology.—In many cases the disease manifests no very striking phenomena; the patient does not complain of pain or tenderness in the vagina or neighboring organs—the chief symptom being a muco-purulent discharge of greater or less quantity. Examined by the speculum, we observe the more or less strongly developed papill  of the vagina previously mentioned, and in-

*Die Parasiten d. Weibl. Geschlecht. org.

stead of the normal rosy red hue, a bluish red or leaden gray appearance is presented; while in consequence of the deprivation of its epithelium, it is here and there excoriated and bleeds on the slightest touch. The burning and itching sensations of the external genital organs, which are often complained of and constitute the most annoying symptoms, have been attributed to the mycosis. These latter symptoms are aggravated after urinating, and after coitus.

The true significance of this affection will be manifest by attention to the facts that the disease is a chronic one, which can persist indefinitely; that the external genitals and inner surface of the thighs are often excoriated by the acrid discharges; that coitus is often exceedingly painful and sometimes impossible; that it is liable to extend to the mucous membrane of the uterus and Fallopian tubes, and when resulting from gonorrhœal infection, may be the cause of acute and chronic perimetritis and ovaritis, as Dr. Nœggerath*, of this city, has shown; and finally, that the relaxation of the vaginal mucous membrane is a source of prolapse of the anterior and posterior wall.

Treatment.—In treating chronic vaginitis, we must have regard, in the first instance, to its causes. If it is combined with chronic endometritis, changes in the position of the uterus, &c., or if due to chlorosis, &c., treatment must be directed to these affections primarily. Local treatment, however, can rarely be dispensed with; and when we have to deal with obstinate cases, and especially when the touch reveals thickening of the walls of the vagina, and hemispherical elevations thickly strewn over its surface, it is idle to waste time with weak solutions of sulphate of zinc, alum, nitrate of silver, with tannin suppositories, &c. We must proceed at once to the use of the stronger caustics—either chromic acid or nitrate of silver in stick. If chromic acid is used (I generally use it diluted with an equal quantity of water), the walls of the vagina are exposed to view by the speculum, and a thorough application made to the diseased surface. A piece of cotton saturated with glycerine is then introduced into the vagina, and a piece of string attached to the cotton to

**Vide* Die Latente Gonorrhoe im Weiblichen Geschlecht, von Dr. Emil Nœggerath. Bonn, 1872.

enable the patient to draw it out the next morning. Copious injections of flaxseed tea should be ordered twice or thrice daily, used at a temperature of 98°F . Hot water injections should also be enjoined twice daily during the continuance of the treatment. The nitrate of silver causes a good deal of pain for one, two or three hours; when excessive, a solution of common salt must be thrown into the vagina. I use the nitrate of silver in stick in preference to strong solutions of the crystalized form. A glycerine dressing should be introduced after its use, as after the chromic acid.

After the immediate effects of the cauterization have disappeared—and in the case of chromic acid it may require a week—one of Sim's glass dilators, such an one as he uses after his operation for vaginismus, is introduced, and the patient directed to wear it continuously. It should be dipped in warm water and then in glycerine before being introduced. In obstinate cases, simple cauterization will disappoint our expectations; but if succeeded by the use of the glass dilator, the worst cases will yield sooner or later. Obviously, I leave out of view such cases where the disease depends upon constitutional affections, which are incurable.

The favorable action of the dilator is three-fold. In the first place, by keeping the inflamed walls of the vagina apart, rest is secured; secondly, with the distension of the vaginal walls, compression is exercised upon the blood vessels distributed to them, and the quantity of blood contained in them diminished, or, in other words, the hyperæmia is moderated; and thirdly, the pressure brought to bear upon the hyperplastic tissue causes its atrophy, or, to speak after the manner of the pathologist, induces regressive changes in it. The size of the glass dilator must be adapted to the requirements of the individual case. It is possible to put in such a tight-fitting vaginal plug as to cause sloughing, and it should be secured *in situ* by a T bandage. After the use of the glass dilator for a week or more, an improvement of a marked character will be at once apparent. If the cauterization has to be repeated, it should be followed by flaxseed tea injections and glycerine dressings for several days before again using the dilator. The length of time during

which the dilator should be worn will depend upon the gravity of the affection. A few weeks may suffice, or it may require months to effect our purpose.

It is hardly necessary to add that while the local treatment is in progress attention should be paid to a proper regulation of the diet, tonics exhibited when required, and especially iron in cases of anæmia; that spirituous drinks should be interdicted as a rule, and that the patient, if a married woman, should live *absque marito* until a restoration to health occurs.

Below I give the notes of a case by way of illustration:

Mrs. Blank, age 33, came under my treatment for chronic vaginal catarrh early in January. The most important points of her history are the following; Has been married 13 years; prior to marriage had suffered with no menstrual difficulties other than slight dysmenorrhœa; about a year after marriage had a miscarriage at the third month of pregnancy; was quite ill in consequence of it; since then has remained sterile. Three years ago began to suffer with leucorrhœa, which has been growing steadily worse; the past year she has been excessively annoyed with an intense burning and itching sensation referable to the organs of generation. Two years ago she consulted a distinguished physician of this city, who told her she had thickening of the walls of the vagina, but as he was just about to leave the city, she did not have the opportunity of receiving treatment from him. She has been under the care of a number of physicians, at different times, one of whom prescribed tannin suppositories to be introduced into the vagina, which relieved, to a certain extent, the burning and itching sensations.

January 3d, '74.—Present state: General health quite good, though the patient suffers from dyspepsia, and has chronic pharyngeal catarrh. Examination per vaginam reveals thickening of both walls of the vagina, but much more marked upon the anterior wall. The swollen papillæ manifest themselves to the touch, as projections above the surface of the mucous membrane, varying in size from a millet seed to a small pea, and are very numerous, especially anteriorly and toward the ostium vaginæ. The introduction of a Sim's speculum causes great pain, and shows an alteration of the color of the vagina from the normal hue to a bluish red.

Treatment.—The parts being exposed to view by Sim's speculum, an application of chromic acid in solution (1 part of chromic acid to 2 parts water) was made to the diseased surface. Cotton soaked in glycerine was then introduced—the

latter to be kept in all night and taken out in the morning. Copious injections of hot water (98°F.) to be used twice daily; also flaxseed tea injections at same temperature.

January 9th.—Introduction of speculum causes much pain; the cauterized surface bleeds readily; applied glycerine dressing.

January 25th.—Vagina looks better. Used nitrate of silver in stick, followed by the glycerine dressing.

During the month of February, made use of the chromic acid once, and the nitrate of silver several times.

March 26th.—The diseased surface is much better, and the disagreeable symptoms from which she suffered have been relieved; but more or less thickening still remains, and the color of the vagina is not normal. Commenced the use of the Sim's glass dilator—the patient to wear it continuously, only taking it out to walk in the street, or when menstruating, or when using the vaginal bath.

April 14th.—Very great improvement; thickening rapidly disappearing, and the color more natural; nitrate of silver applied to anterior vaginal wall; the glass dilator discontinued for two days and then resumed.

April 29th.—The patient has continued the use of the glass plug, only taking it out at the time of menstruation. The vagina now presents a rosy, red hue; the granulations and other signs of disease have disappeared. Case discharged cured.

ART. II.—*Cases, and Treatment by Electricity.* By JOHN J. CALDWELL, M.D., Baltimore, Md.

The subjoined notes of cases are contributed to illustrate the extensive range of application, and value of electricity in the treatment of disease:

Case I. *Labio-Lingual Paralysis.*—Miss D., aged 14 years, presented herself for treatment March 21st, 1873, because of paralysis of the tongue and lips. Some two or three years previous she had a convulsive seizure following an attack of malarial fever, which left her aphonic. On examination, the tongue and lips were found to be utterly without service in eating—so much so, at least, that food had to be cut very fine, placed in the mouth, and deglutition assisted by pushing the food down the throat with the finger; lips pendant, and saliva flowed freely and helplessly at all times.

The treatment consisted in daily alternations in the appli-

cation of Galvanism and Faradism, and in the quite regular hypodermic use of strychnine. This treatment was continued for about a year, with the effect of slow but constant improvement, so that she became able to attend school, recite her lessons, sing and talk; though there was left a slight lisp and some difficulty in articulation.

Suspecting that there probably existed central brain trouble, I placed her upon the iodides, and passed a gentle Galvanic current directly through the brain. This was effected by placing the electrodes (positive and negative respectively) over the mastoid process of each temporal bone, using a power of from two to six Sthor's cells, gradually approaching the power of the maximum number, until, through the retina, faint electrical scintillations were obtained, with a metallic reaction upon the nerves of taste; but the power was not applied in sufficient strength to produce vertigo. Great pains were also taken to avoid sudden interruptions of the current.

This case is still under observation. Deglutition is now perfect.

Case II. *General Neuro-asthenia with Partial Insomnia.*—Mrs. General T., of Easton, Md., was presented, November, 1873, for treatment for melancholia, with great nervous depression. The circulation was consequently enfeebled; her repose became fitful and irregular; and for nights she had not been able to get asleep until 3 A. M., when insomnia supervened, with general irritation of the nerve centres—all of which occasioned such wild and irregular thoughts that it became necessary for some member of her family to be constantly with her to afford diversion of mind as best they could by reading, talking, walking with her, &c. This mental trouble had a hereditary history.

R Strychniæ. sulphat.....	gr. j.
Acid. phosphor. dilut.....	.....
Tinct. capsici.....	aa ʒij
Aq. distillat.	ʒiv.

M.—S: Twenty drops in water twice daily.

A gentle Galvanic current was passed through the pneumogastric nerve, while at the same time, what is known as *Consti-*

tutional Faradism was administered, i. e., the naked feet were placed in a basin of warm salt water, which was connected with the negative pole of the battery; then, while grasping the positive pole with the left hand, the right hand of the operator was passed over the cranium and down the spine as the electrode. These applications were made daily from about the middle of November till the following Christmas holiday, and resulted in her complete recovery.

Case III. *Prolapsus Uteri, with Prolongation of the Broad Ligaments.*—I was called in consultation with Dr. George C. Ogle, June 1st, 1873, to see his patient, Mrs. C., æt. 30 years, suffering with falling of the womb; she also presented many hysterical symptoms. We adopted the treatment of Constitutional Faradism, with the internal use of strychnia and iron. The Faradic currents were passed in the direction of the uterine vessels, from the sacrum toward the fundus uteri. In all, some fifteen or twenty applications were made, with the happiest results.

I would especially call the attention of the profession to the value of electricity in this class of cases.

Case IV. *Atrophic Muscles, with Partial Talipes Varus.*—Eugene C., aged 12 years, afflicted with atrophic paralysis of the muscles of the leg and partial talipes varus, was operated on when an infant, with only measurable relief of his club foot. He came to my office May 29th, 1873, for treatment, when I removed the "Scarpa's form" which he had worn for years, braced the ankle by suitable appliances, and made daily applications of the electro-massage current; at the same time he was placed on small internal doses of strychnine. This treatment was continued until August 13th, when the little patient was discharged well.

It should be remembered, in dealing with cases of this kind, that there is a class due to faulty atonic muscles that must be restored to coördinate with their fellows and opponents. Just here oftentimes lies the secret of successful treatment in many instances of deformities of the character like the one under notice.

Case V. *Irritation of the Neck of the Bladder and Urethra.*

J. H. K. was referred to me by Prof. Harvey L. Byrd, M.D., for treatment, August 1st, 1873. He was suffering with irritation of the urinary passages, of long standing and of the most obstinate nature. There was a profuse and continuous mucopurulent discharge from the penis, with the other usual symptoms of the condition named. The bladder was daily washed out with warm water, medicated with small quantities of carbolic acid and glycerine. The Galvanic current was also regularly passed through the parts affected. Under this treatment, continued till December, the symptoms yielded kindly.

Case VI. *Tumor of the Thyroid*.—Miss Kate W. (December 17th, 1873) was sent to me by her physician for *goitre* of the left thyroid gland, which had resisted treatment, and was rapidly growing. Under the directions of Althaus and Moritz Meyer, alternate daily applications of electric currents from the Galvanic and Faradic batteries were made, each *seance* lasting from fifteen to twenty minutes. Sponge-tipped electrodes, saturated with salt water, were placed directly over the diseased surface. These currents were carried to the extent of producing thorough congestion at each application. The applications were continued for two months, with the effect of dissipating the tumor.

The above named authors report many similar cases, with like beneficial results, of such applications.

Case VII. *Paresis of the Vaso-Motor Centres*.—I was called to see W. McC., aged 60 years, September 2d, 1873. He was suffering terribly from dyspnœa, with general anasarcal infiltration most thoroughly manifested from the heart and lungs to the lower extremities. Upon examination, I could find no lesion in the heart, lung, liver or kidneys, though their functions were greatly impeded. From these considerations and the other history of the case, I diagnosed an enfeebled circulation, a neurosis engendered by a long and continued course of alcoholism. Under these circumstances, I passed electrical currents directly through the cardiac axis and great trophic centres—making daily applications of Galvano-Faradism by placing the negative pole over the cardiac and epigastric regions, while the positive pole was put in a basin of warm salt water in which his feet were placed. In addition, gentle and uniform bandage pressure

was applied from the chest downward; the feet were pricked with a small bistoury in order to relieve the fluid pressure as much as possible; the bowels were kept open by appropriate doses of jalap, etc. Under this *regime*, the patient rapidly improved, the respiration and the heart's action became normal, and he is now in a better condition than he has been for years. Still, I am unable to detect any organic lesion.

This case belongs to a class of functional derangements which have no doubt mystified many a medical man.

ART III.—*Spirits of Turpentine in Protracted Labor.* By A. WADE, M.D., Charles City co., Va.

On Friday evening, ———, 1870, Mrs. A. gave birth to a healthy child. It was soon discovered by Dr. Roane, who was with her at the time, that it was a case of twins. He waited patiently for the birth of the second child until the following morning, at which time I was requested to see the lady with him.

On my arrival, he reported the presentation natural, the pelvis of sufficient capacity, and the pains such as would warrant the expectation of an immediate delivery. There was no hemorrhage, no decided prostration or other reason why we should resort to artificial means. We consulted as to the propriety of turning; yet, as there was no immediate necessity, and as the violent uterine contractions rendered such an operation very difficult, it was postponed from time to time throughout the day. During this day (Saturday), the following night and Sunday morning, the pains continued without intermission with great violence. Ergot, and, perhaps, other remedies, were administered without relief. On Sunday morning I went to church, but returned about 2 o'clock. During the afternoon and the early part of Sunday night, the pains were of such violence as to create the apprehension of a rupture of the uterus.

At a late hour of this night (Sunday—it having been more than 48 hours since the birth of the first child—), as the violent and propulsive pains continued, without any apparent result, I

suggested to Dr. Roane the propriety of administering a full dose of spirits of turpentine with castor oil (two teaspoonfuls of the former and a tablespoonful of the latter). Having used the spirits of turpentine on former occasions with good results, this suggestion was made without any distinct view of its *modus operandi*. I had deemed its action similar to that of ergot and other remedies of that class. There was some delay in procuring the turpentine, as it was necessary to send to a neighboring house for it. This brought us to some late hour of the night, perhaps to 3 or 4 o'clock.

I had laid down for a little rest when the turpentine was brought, but it was immediately administered by Dr. Roane. The instantaneous result was a most decided borborygmus, and a displacement of a large volume of gas with which the bowels had been filled, and in a few minutes the expulsion of a living and healthy fœtus. The mother did well, and both of the children lived.

Of the agency of the turpentine in procuring this immediate result, there can be no doubt; yet, the question arises, How did it act in effecting this end? This is a question of much importance. Its intelligent and correct decision may guide us in its use. It has been often used, yet, I presume, in most cases empirically.

My object in directing the attention of the profession to this particular case is to furnish a guide by which it may be employed understandingly, or to point out at least the class of cases to which it is particularly adapted, and thus to indicate an agent by which many painful and protracted labors may be brought to a speedy termination. In this case the woman was strong, the pelvis was ample, the pains sufficient, the presentation natural, and yet there was great delay and no little risk of rupture of the uterus, among many other dangers incident to all protracted labors. My own opinion, based upon all the facts of this case, is decided. It is a well known and generally admitted fact that the abdominal muscles perform, at certain stages of labor, a most important part. They aid materially the uterine muscles in the expulsion of the fœtus. Nature, who never errs, would not employ the action of these muscles

as she does but for some wise purpose. In this case, the presence of a large volume of gas, with which the bowels were filled, to some extent, by long continued distension, may have paralyzed these muscles; but I apprehend that the chief difficulty arose from the intervention of this gas. It was impossible to transmit through this gaseous medium the force that the abdominal muscles might otherwise have exerted. The power existed, but the difficulty was its transmission to the uterus. As soon as this gaseous medium was removed by the turpentine, the abdominal muscles were enabled to render that aid, which, in the economy of labor, is their normal and essential duty.

If my theory be right—and I think the facts of the case will scarcely allow two opinions—then we have found, not a new remedy, but that which is far more important, a fixed and well defined principle by which we may be guided in the use of an old remedy. Whenever this tympanites exists, I would advise the use of the turpentine.

Clinical Reports.

A Case of Remittent Bilious Fever, Complicated by Hæmaturia and Jaundice—Death on the Tenth Day. By JOHN N. UPSHUR, M.D., Richmond, Va. (Reported to the Richmond Academy of Medicine, June 4th, 1874).

I was called, May 21st, 1874, to see George L., light mulatto, æt. about 50, residing in the vicinity of some of the lowest ground in the northeastern portion of this city. He was a hack-driver, and during the past winter had undergone a good deal of exposure. He had for many years been a hard drinker. Twenty years before, had an attack of hæmaturia, and another one year before.

May 21st.—He has not been well for more than a week; has had several chills; one yesterday; is anæmic; complains of feeling weak and badly, and suffers very much with pain in the loins; tongue heavily coated with a light, yellow fur; bowels constipated; no fever. Suspecting some malarial trouble, with renal complication, ordered calomel and bicarb. soda purge at bedtime, and sulphate of quinia, grs. x., at 6 o'clock next morning, to be repeated at 10 A. M.

22nd.—Found him in bed, not so well as yesterday; pain in

the back, and so tender in the left lumbar region as to be intolerant of the slightest pressure; urine *scanty* and high colored; tongue less coated; little or no fever; medicine has acted well once. Suppression of urine is feared. To take every two hours:—

R Hydrarg. chlorid. mit. gr. j.
 Pulv. ipecac..... gr. ij.
 Quin. sulph..... gr. iij.—M.—Make pill,

Apply blister 6×4 inches over the left kidney. Infusion of hops was directed to relieve scalding in urination, of which he complains very much.

23d.—Took six of the above pills. Blister relieved the pain over the left kidney; still somewhat tender in the left lumbar region; less scalding in urination; *no fever*; tongue still coated and pale; profuse sweat, of intensely urinous odor. Continue infusion of hops, and take tinct. ferri. muriat., gtt. xx, and to have a generous diet.

24th.—Condition improved. Continue treatment, with the addition of ʒss. chlorate of potash to infusion of hops. Was hastily summoned at 7.30 P. M., messenger requesting me to bring an instrument, as he “could not pass his water, and was suffering greatly;” reached him in an hour. He told me that something had passed from his bladder into the urethra. Upon palpation, the bladder did not seem to be distended. On passing an instrument, I found a small calculus in the urethra, about the sinus of the bulb. The instrument, after a little gentle manipulation, passed into the bladder, and on being withdrawn, the calculus was dislodged and removed. It consisted of phosphate of lime, and would have been passed by the patient, but for a stricture in the spongy portion. He now voided his urine in a good stream without much trouble. Morphiae sulph., gr. ss, to be repeated as often as necessary, and enjoined perfect quiet.

25th.—Had a chill soon after I left him; took four morphine powders; passed a tolerable night, and his condition, in most respects, is better than I expected to find it. Has some appetite. Increase the dose of iron, and continue the infusion of hops.

26th.—This morning he is sitting up on the side of the bed vomiting. He has altered much since yesterday. Skin and eyes show him to be deeply jaundiced. Has thrown up about one pint and a half of dark, bilious matter; has subsultus tendinum; skin covered with a cold, clammy sweat; pulse small, feeble, and about 100 per minute. He has passed since last night about 1 quart urine, of a brownish black color, which

leaves a copious deposit of phosphates. I suppose the color due to blood from the kidney. Stop former treatment, and take instead a tablespoonful of brandy, with ice, every half hour, until he reacts; the intervals then to be increased. To have concentrated nourishment, including milk and lime water, and a sinapism to the epigastrium to allay the vomiting. 7.30 P. M.—Skin warm; tongue heavily coated; has hiccough; subsultus. Has voided more urine of the same character as that noted this morning. Has had a healthy action of the bowels. Pulse 120.

℞ Morph. sulph..... gr. ij.

Gum. camph..... gr. xij.

M.—Make six pills.—One every hour until asleep.

27th.—Took four pills, rejecting the first one. Is sleeping soundly but naturally. Passed a restless night, except 2½ hours that he slept; pulse 120; tongue unchanged; less jaundice; has passed a normal quantity of urine, with not so much blood. Prognosis more favorable. Continue brandy and nourishment. Urine tested by Dr. L. S. Joynes; heat showed the presence of blood. Microscopic examination: the urine passed this morning contained a number of oil globules and some curious bodies, which Dr. J. said he had not before seen in urine; could detect no blood corpuscles or casts. P. M.—Dr. J. saw him with me. He looks dreadfully; pulse 145; could scarcely be aroused; pupils contracted; tendency to death by coma; urine free of blood; under the microscope, an abundance of oil globules and some epithelium cells from the blood are seen; slight cloudiness on heating. Dr. Joynes suggested that this was a case of hæmorrhagic malarial fever, such as he had seen reported as occurring in the Southern States during the last few years, and one case of which he had seen here three years ago. The prominent symptoms of the disease are hæmaturia and jaundice. He had tested some specimens of urine which had been sent him from the South, all of which corresponded with the urine passed by this patient.*

All other treatment was stopped. Take carbonate of ammonia, gr. v., every two hours; apply blister 6×8 inches to epigastrium, and 5×3½ to each forearm.

28th.—Visited patient in company with Dr. Joynes; under the influence of the ammonia and blisters; condition somewhat improved; pulse 108; tongue blanched and heavily coated; skin pleasant; mental condition improved, though still somewhat obscured; pupils contracted; eyes clearer; urine normal in quantity, high colored, but free from blood. Ordered 30 grs.

*See Tanner's Practice, page 104, 5th American edition.

sulph. quinia in grs. x. doses, every 3 hours. P. M.—Has taken only one powder; an hour afterwards insisted on getting up to pass his water, and fainted; has vomited once; has taken only one or two doses of the ammonia mixture and a little brandy and milk; is weaker; condition in other respects much the same as yesterday evening, though his pulse is only 125, and the tendency to coma not quite so great. Blister re-applied to the epigastrium and the inner side of the legs; ammonia and nourishment to be kept up at regular intervals during the night; a little brandy once in four hours. At 6 and 10 A. M. to have grs. x. sulph. quinia; not to be allowed to get up for any purpose.

29th.—Passed a tolerable night; pulse 108; tongue coated; eyes jaundiced; mind clearer; urine normal in quantity and high colored—free from blood; blisters had drawn very imperfectly; has hiccough, subsultus, tympanites; has taken 20 grs. quinia this morning. Take 20 more before 3 P. M. 6.30 P. M. Pulse 120 and feeble; exacerbation of fever not so great. To take 5 grs. quinia every 3 hours during the night; 3ss. brandy every 4 hours, and nourishment at regular intervals; re-apply blister to the epigastrium, to remain until it draws thoroughly; tendency to death from exhaustion.

30th.—Pulse 174; passed a bad night; complains of headache; took 5 quinine powders during the night; weaker; other symptoms unchanged; vomited about an ounce bilious matter; 15 grs. more quinia to be taken before 3 o'clock; blister has not drawn; allow it to remain until it does. There was little change during the day. He grew gradually weaker and comatose, and died at 9 P. M. No autopsy could be obtained.

Remarks.—I would call attention to the amount of quinine taken on separate days by this patient—in 18 hours, grs. xxxvii.; another day in the 24 hours, grs. lxxx., without preventing the rise of fever in the afternoon, though it was not so great as the day previous—large doses of quinia being considered par excellence the remedy. I would not depreciate the remedy, but would give to it its well merited value; only this fact evidences the malignancy of the above case. One other case of malarial fever occurred in this family during the spring, and some during the previous year, but none were marked by any unusual symptoms.

Dr. R. W. Taylor (N. Y.) reports four cases of ulcer of the penis in infants after the Jewish rite of circumcision.—*Mo. Clin. Record.*

Correspondence.

Stump Holes as Drainage Sinks.

Editor Virginia Medical Monthly:

As the subject of "Drainage for Health" is exciting some interest at this time in our profession, having elicited several articles in different journals, among them one from Prof. J. L. Cabell, M. D., in the May number of the *Virginia Medical Monthly*, I propose to give some facts within my own personal knowledge, to corroborate and prove the correctness of Dr. Wilson's theory of "stump holes as sinks for drainage," given in Dr. Cabell's letter.

Our section of country is now intensely malarious—so much so that malarial fevers prevail more or less throughout the whole year—winter, spring, summer and autumn—jack-frost and cold weather even failing to dispel this hydra-headed monster, as in former times. It is self-evident that the source of this increase of malarial diseases in the last eight years is "insufficient drainage," caused by the river and its tributaries being choked up by drift wood, leaves, &c., thereby largely increasing the area of marsh lands.

In the year 1871 a new settlement was established on a farm of 250 acres of land, $2\frac{1}{2}$ miles southwest of San Marino, Dinwiddie county, Va., on the north side of Nottoway river. The present growth around the settlement consists of small oaks, hickory, &c. The former growth was of large pines, which have nearly all died out, leaving any number of very large and deep stump holes. This farm affords an exception in regard to these sinks, which are not generally found throughout the extensive pine forests of our section. To put the case in its strongest light, I will state that a gentleman and neighbor, who indulges in the sport of fox-hunting, applied the *soubriquet* of "Stump Hole" to the place, from the fact that he had made several narrow escapes from broken limbs, in encountering these unobserved holes in the exciting chase after reynard; and the name holds good now, notwithstanding the effort to supplant it with one more refined. Up to this time, there has been no case of

malarial fever in any form on this farm since it was settled, while the disease has prevailed at all the settlements around it, (except one) and throughout the neighborhood; and often prevailing in the congestive or pernicious type, it has proved very fatal, some of the cases presenting many of the symptoms of yellow fever—even those of a very yellow tinge and apparent black vomit. The excepted place is that of a gentleman who had only two cases of intermittent fever in his family last fall. His farm, which was originally a part of the above mentioned tract, has on it many of the same drainage sinks.

These circumstances prove beyond doubt that the only relief exists in proper and systematic drainage; and how this is to be effected, I can't divine, but hope some wise head will devise some efficient and successful plan which will afford us speedy relief. From individual effort and enterprise, in our present impoverished condition, there is no hope—a scheme for drainage having already been attempted by our citizens in public meeting assembled, and signally failed for the want of means. No doubt, as some have said, “in time this will be effected by a gradual and perfect system of drainage for agricultural improvement, and our lands now scarcely marketable, will command their proper value, and teem with an abundant, thriving and healthy population.” But this remedy is rather too much on the expectant plan to afford relief in a desperate case like this, which is almost one “*in articulo mortis*.”

I was so struck with the idea of stump holes acting as drainage sinks, particularly in regard to the aforesaid farm, thereby, I think, exempting the residents, or rather protecting them, from malarial influence, that I send you the above hurried communication on the subject.

HUME FIELD, M.D.

San Marino, Dinwiddie co., Va., May 30, 1874.

Original Translations.

The Jaborandi. By J. S. WELLFORD, M.D., Professor Materia Medica, &c., Med. Col. of Va., Richmond.

The jaborandi is a Brazilian shrub, apparently identical with a species of Rutaceæ, the *Philocarpus pinnatus*. It possesses

energetic sudorific and sialagogue properties. Its oval, elongated, entire leaves, $\frac{3}{4}$ to $2\frac{1}{2}$ inches wide, 3 to $4\frac{1}{4}$, and sometimes even 11 inches long, are glabrous, smooth, thick, and similar to the leaves of the Apollo laurel. According to Dr. Continho, of Rio Janeiro, who brought to Paris the first specimen, "it is only necessary to bruise the leaves and small twigs, and infuse 60 to 90 grains in a cup of cold water. Ten minutes after the administration of this infusion, which it is not necessary to drink warm, the patient is in a profuse perspiration, which lasts four or five hours, and is such as to require several changes of the clothes. At the same time, there also supervenes an abundant salivary secretion, and a bronchial excretion not less copious, and which is so great as almost to prevent speech, so rapidly is the mouth filled with the liquid. This excretion may exceed two pints in quantity, or even more. A patient attacked with a severe bronchitis while in the service of M. Gubler, to whom there had been administered a cup of this infusion, compared the effect produced to an internal vapor bath. It is, therefore, at the same time, a powerful diuretic and an energetic sialagogue. There does not exist in the *Materia Medica* a single diaphoretic of the same importance. All the others act more or less by reason of being in a hot infusion."

These assertions have been verified experimentally by several physicians.

Dr. Rabuteau has ascertained in his own person these remarkable properties, and has made some chemical researches with the leaves with the following results: "The leaves of the jaborandi have an odor which appears to be due to a volatile principle not analogous to the essential oils contained in the aromatic plants; they have a bitter taste, which is due to a principle soluble in water and alcohol, and which may be isolated by treating with alcohol the aqueous extract of the leaves. Finally, these leaves do not appear to contain any alkaloid. From all this, it will be easy to determine what is the active principle of the jaborandi. It is sufficient to administer separately, 1st, The water distilled from the leaves. 2d, The bitter substance obtained by the aqueous extract with alcohol. 3d, The residuum of this aqueous extract which is insoluble in alcohol."

According to M. Gubler, this substance will be very useful in the affections produced by cold, bronchitis with vibrating rales, albuminous diabetes and dropsies, the poisonings and diseases due to miasms or morbid poisons, the eruptive fevers which have been checked in their evolution. I believe that in consequence of its expectorant properties, the jaborandi may be useful in the nasopharyngeal catarrh and granular pharyngitis. Its powerful sudorific action may modify very advantageously certain cutaneous diseases; and I know officially that one of our confrères has cured a rebellious psoriasis by the use of the infusion alone. *L'Abeille Medicale*, May 11, 1874.

Proceedings of Societies.

AMERICAN MEDICAL ASSOCIATION.

First Day.—The 27th annual session convened in Detroit, Mich., at 11½ A. M., Tuesday, June 2, 1874—the President, Dr. J. M. Toner, Washington, D. C., in the chair; Dr. Wm. B. Atkinson, Philadelphia, permanent secretary. Prayer was offered by Rt. Rev. S. A. McCoskry, D.D.

Dr. Wm. Brodie, in behalf of the profession, extended the usual courtesies of the city. Among other points mentioned in reference to Detroit, which mark its material prosperity, he stated that that city was one of the healthiest of the country—its mortality for 1873 being only 2½ per cent. This healthfulness is not attributable to location, but to the complete system of sewerage—over 92 miles having been constructed since 1835. The water supply is from the Detroit river, which is remarkably free from organic impurities. The daily average supply for 1873 was about 90 gallons for each inhabitant—the surplus quantity being used to wash the sewers, &c.

Drs. Richardson, Hall, Casgrain, Lambert, Andrews, Nesbitt, McMicking, Bell and McCormick, all of the Dominion of Canada, were invited to seats. The courtesy was acknowledged by Dr. Richardson.

Dr. J. M. Toner delivered his *inaugural address* as President. He commenced by giving in tabular form the names of the Pres-

idents elected from the organization of the Association down to this session, the States from which they hailed, &c. From this table, it appears that Dr. J. Knight, of Connecticut, and Dr. N. S. Davis, of Illinois, have each served two terms. The following Southerners have been Presidents: Drs. Jas. Moultrie, S. C., 1851; B. R. Wellford, Va., 1852; C. A. Pope, Mo., 1854; P. F. Eve, Tenn., 1857; Henry Miller, Ky., 1859; Wm. O. Baldwin, Ala., 1869; and D. W. Yandell, Ky., 1872.—The first session of the Association convened in New York 1846, in response to a call of the N. Y. State Medical Society, at which there were 129 delegates, representing 7 State Medical Societies, 13 local societies, 14 colleges and 2 hospitals. The first medical society in the country was organized in Boston, 1711; the next in Philadelphia, 1765; the New Jersey Medical Society was the first State medical organization (1766). When this Association was formed, there were but 125 medical societies and institutions in this country; now there are over 1200.—Among other interesting statistics, it was stated that according to the census of 1870, there were in the United States 62,383 physicians, male and female—a ratio of 1 to every 618 population; whereas, in England and France the proportion is about 1 to every 2,000.—The only States that have laws to *secure* registration of births, marriages and deaths, and which also have State Boards of Health in successful operation, are California, Massachusetts, Michigan, Minnesota and Rhode Island, though Maryland and Virginia have recently established such Boards.

Regarding medical education, Dr. Toner mentions the Medical Department of the Northwestern University of Illinois and Harvard University as the only institutions that have adopted strictly the three years' course of study, with a system of graduated classes, and a lecture term of six months each. This system is working well in each of these institutions. He remarks that "it has so much to recommend it that it is to be hoped all our first-class colleges will adopt it."—The earliest law passed by any of the American colonies having reference to the medical profession was the 9th Act of the General Assembly of Virginia, October 21, 1629, to compel physicians and surgeons to declare on oath the value of their drugs and medicines. The earliest legislation regulating medical fees in America, was the Act of Virginia, 1736, entitled "An Act for regulating the fees and accounts of the practisers of physick," which act authorized courts to make a distinction between the charges of physicians regularly educated in physick, and those who had been merely apprenticed.—In making appointments to medical institutions, the advantages of competitive examinations were urged as se-

curing the most efficient, encouraging the industrious and careful student, and rewarding the really meritorious medical man. It is not true in fact, whatever may be the theory, that one graduate is just as good and as competent as, and no better than, others.—A complete and well endowed Physiological and Pathological Laboratory is recommended to be established—preferably in one of our larger cities—for the encouragement of original research in histology and in experimental physiology and pathology. This laboratory should be organized on a similar plan to those in successful operation in almost every university town in Germany.—It is also suggested that all medical institutions created by law or acting under charters should be required to publish annual reports of their facilities, labors, discoveries, &c. The principle should obtain that such institutions should be held responsible by the public for the manner in which they exercise their privileges, raise and expend funds, and conduct business. The public has a right to claim this that it may profit by experience, correct abuses, and encourage only the deserving.—In regard to hospitals for the insane, with their unequalled advantages, it is but natural that the profession should expect reports from them, with carefully studied cases, and detailed accounts of autopsies, and microscopic examinations of diseased brain and nerve tissue, which could be turned to account by the practitioner. Dr. Gray, (Supt. N. Y. State Asylum) requested the Legislature to appoint an accomplished microscopist to his institution, which was done by unanimous vote, and in addition a complete outfit was provided for chemical examinations and for taking photo-micrographs. The late reports already attest the wisdom of the measure.—A hospital for the exclusive treatment of cancerous diseases has recently been founded in England. Dr. T. thinks if a similar one were established in some of our large cities, it would supply an urgent want, and do much toward developing and discovering more efficient means for combating this class of diseases.—The organization of State, county and city boards of health should be encouraged by the profession, and authorized by law. Such bodies, if properly constituted by intelligent and energetic physicians who will make sanitary science a study, would add much to public and private security.—The organization of an International Medical Association is also recommended—the first meeting to take place in Washington city during the summer of 1876 while the American International Exposition is being held in Philadelphia.

While the country has been generally healthy during the past year, allusion was made to the epidemics of yellow fever at Memphis and Shreveport, and the names of the physicians who died in

each of these cities at that time are given. At a most alarming period of the epidemic at Shreveport, in response to a call for professional aid, sixteen physicians from New Orleans went there to assist the overburthened and thinned ranks of the profession of that city.—The combined age of the 12 deceased Presidents of this Association give an average of 75 years to each. —From records in possession of Dr. Toner, he finds the average age at which 2,000 American physicians died was 58 years; the average age at death of 1,000 Congressmen was 62 years; of 1,200 Presbyterian clergymen 57 years.

On motion, the recommendations contained in the address were referred to a committee of five. Adjourned.

Second Day.—A committee of one from each State and Territory represented in this session was appointed to nominate officers, &c., for ensuing year.

Dr. R. R. Porter's (Del.) resolution, recommending that committees be appointed from among those present, was referred to the Judicial Council.

Dr. N. S. Davis, chairman of the Judicial Council presented the Report on the Code of Ethics, recommending that no change be made. Adopted.

The proposed amendments to the plan of organization were taken up:

By Dr. Davis, (Ill.)—Strike out 2d paragraph, Art. II, and insert: "The delegates shall receive their appointment from permanently organized State Medical Societies, and such county and district medical societies as are recognized by representation in their respective State societies, and from the medical departments of the army and navy of the United States." Also strike out 4th section of same article, and insert: "Each State, county and district medical society, entitled to representation, shall have the privilege of sending to the Association one delegate for every ten of its regular resident members; and one for every additional fraction of more than half that number."

The amendments were adopted—the second with the following addition:

"Provided, however, that the number of delegates from any particular State, territory, county, city or town shall not exceed the ratio of 1 in 10 of the resident physicians who may have signed the code of ethics of this Association."

The other proposed amendments were laid on the table.

Dr. Keller, chairman committee to petition Congress to raise the rank of the medical staff of the army to proper rank with other staffs, read his report, and offered the following which was unanimously adopted :

Resolved, That a committee of one person from each State and Territory, with power to fill vacancies, be appointed, for the purpose of memorializing Congress upon this subject, and of securing the co-operation of the several State and county medical societies for the same purpose.

Resolved, That Dr. J. M. Toner, of the District of Columbia, be chairman of said committee, and that the other members of the committee be appointed by the President.

A letter from the Surgeon-General, presenting the Association with a copy of the catalogue of the library, which now contains 65,000 volumes, and asking for donations of works, was read.

Dr. N. S. Davis read his *Report on the more Important Advances and Discoveries during the past year in Practice of Medicine, Materia Medica and Physiology*, which report was more of a discussion of propositions than a statement of any decided advance, or discovery of anything new or valuable.

Dr. S. D. Gross read a paper on *Syphilis in its Relation to National Health*, in which he took decided grounds, for sanitary reasons, in favor of the regulation of prostitution by law, and of medical inspection of prostitutes. Adjourned.

Third Day.—The committee to whom was referred the consideration of the suggestions in the President's address, concur in the propriety and desirability of establishing at some central place a physiological and pathological laboratory. The publication of annual reports of the progress and discoveries of all chartered medical and sanitary institutions is favored. The formation of a complete system of State and local medical societies is urged. The extension of the time of the session to four days is recommended.

The committee offered the following, which, with the report as a whole, was adopted :

Resolved, That the President appoint a committee of five, of which he shall be chairman, to elaborate a plan for the organization of an international medical congress, and report at the next meeting.

Dr. White (of Buffalo), on behalf of Dr. Gross, presented a preamble and resolutions of regret at the death of Henry Miller, M.D., of Louisville, one of the ex-Presidents of the Association, and of respect for his memory, which were adopted. Drs. Gross, Keller and Gaillard were appointed a committee to prepare a memorial to be presented at next meeting.

Dr. Keller (Louisville), presented resolutions adopted at Danville, Ky., relative to a monument to the late Ephraim McDowell, M.D.; and also offered a preamble, declaring that the Boyle County Medical Society of Kentucky, and the Kentucky State Medical Society were making an effort to create a fund for erecting a monument in honor of Dr. McDowell, the father of Ovariectomy, English writers to the contrary notwithstanding, who lived in the town of Danville, Ky, and who performed in that town the first ovariectomy in the year 1809; and a resolution asking the Association to endorse the action taken, and to commend the object to the generous consideration of the medical profession of the world.

The matter was referred to a committee consisting of five members from Kentucky, to take such action as they might deem best. Dr. Keller suggested that the memorial take the form of a statue or monument, to be erected in the village of Danville, on the site of the house still standing in which the operation was first performed.

Dr. A. N. Bell read a report on *Sanitary Reforms*.

[The [general and specific value of State Medicine is so well put forward in this report that we wish a copy could be in the hands of every non-professional man. After all that has been stated and re-stated in the medical journals on the subject, we do not suppose that any physician can be found who is willing to acknowledge himself to be so ignorant of the meaning of the term, and so blind as to the importance of the subject to the welfare of communities as to need another word to impress its value upon his mind. Should there be a demand, however, for this paper, we shall take great pleasure in publishing it in full in some subsequent issue of the *Monthly*.—ED.]

The Committee on Prize Essays reported they had received but one essay, and that, in their opinion, was not entitled to a prize.

A communication was received from Dr. Gross and a commit-

tee of 15 of the medical societies of Philadelphia, inviting this Association to meet in Philadelphia on the 4th of July, 1876, to join in the Centennial celebration.

Dr. Pollock (Pittsburgh) offered a resolution for the appointment of a committee of 15 to confer with the Philadelphia committee relative to the meeting of the Association in Philadelphia on the occasion of the Centennial Celebration in 1876. Adopted.

The President announced the appointment of the following delegates to the corresponding foreign bodies: Drs. R. J. Davis, G. Brinton and T. M. Drysdale, of Philadelphia; E. C. Harwood and E. Seguin, of New York; L. C. Lane, of California, and J. D. Jackson, of Kentucky.

Dr. Jewett, of Ohio, proposed an amendment to the constitution relative to permanent members, so that it shall read as follows:

“The permanent members shall consist of all those who have served in the capacity of delegates, and of such other members as may receive the appointment by unanimous vote, and of all others who, being members in good standing of any State or local medical society, entitled to representation in this body, shall, after being vouched for by at least three members, be elected to membership by a vote of three-fourths of the delegates in attendance, and shall continue such so long as they remain in good standing in the body of which they were members when elected to membership in this Association, and comply with the requirements of its by-laws.”

Laid over until next meeting.

Dr. E. C. Seguin's report as delegate to the European Medical Societies, was read. He attended the British Association in London, and the French Association for Advancement of the Sciences in Lyons. At each of these sessions, he advocated harmonizing our means of observation and record in the sick chamber, and instructing mothers and nurses therein. Among other things, he said:

Our methods and instruments of observation are discordant in results and in scales; our clinical tables differ from nation to nation, from one hospital to another, and are almost ignored in private practice. Family physicians are helpless to supply their share of the advancement of science, because they do not edu-

cate mothers to be their clinical assistants; and mothers and nurses remain a prey to the vilest quackeries, because we do not teach them better.

As soon as the object of this communication shall be attained, the observations of physicians will become comparable at a glance, and their record be as positive as those of the operations of the chemist, the physicist and the dynamist.

Moreover, women will be more useful when they form a higher estimate of their functions in the sick chamber; and when they know that diseases are natural deviations from natural laws, they will cease to look for supernatural means of restoring natural health.

He asks this Association to form an international commission of physicians of high standing, speaking the European languages and designing to go to Europe this summer, to charge them to represent the American Medical Association before the British Medical Association, the German and French Association for the Advancement of Science, and other kindred societies; to promote interchange of ideas, and particularly to co-operate with them in any plan, scheme or organization which would have for its direct object the uniform establishment and propagation of the methods and instruments of positive observation. And finally to invite them to report on the progress of this work at the next meeting of this Association.

The report was accepted, and its recommendations adopted.

Dr. Atkinson offered a resolution for the exchange of the published report of the transactions of the Association with other associations, the editors of medical journals and the library of the Surgeon General's office. Carried.

Dr. Wilson, of Michigan, offered the following preamble and resolution:

Whereas, Dr. Bartholow, of Cincinnati, in his zeal for scientific research, has recently made a series of experiments with electricity upon the brain of a patient, by inserting needles into the substance thereof, and passing currents from these to different parts of the body, causing thereby pain, convulsions, and probably hastening death; and

Whereas, We are ever ready and willing to accord the greatest praise and honor to the original investigator in any part of the domain of medicine; yet these experiments are so in conflict with the spirit of the profession, and opposed to our feelings of humanity, that we cannot allow them to pass unnoticed.

Resolved, That in our opinion, no member of the medical pro-

fession is justified in experimenting upon his patient, except for the purpose and with the hope of saving said patient's life or the life of a child *in utero*.

The resolution was referred to the Judicial Council without debate.

Dr. W. B. Atkinson offered as a resolution that a die suitable for a medal, with a likeness of Dr. N. S. Davis on one side, and the name and date of organization of the Association on the other, be struck and furnished to members. Adopted. Drs. Toner, Keller and Woodward were appointed a committee to carry out the resolution.

Dr. Brodie presented the plate on which was engraved the card of membership when the Association met in Detroit in 1856. It was accepted for the archives of the Association, and a vote of thanks tendered to Dr. Brodie for it. Adjourned.

Fourth Day.—Dr. E. W. Jenks was added to the list of delegates to foreign societies.

On motion, Drs. J. M. Toner, N. S. Davis, Alfred Stillé, Austin Flint, Sr., and J. S. Billings were appointed a committee to prepare a plan for the meeting of the International Medical Association.

A letter from Dr. J. W. Bennett (Miss.) was read, presenting the Association with four annual reports of the Medical Missionary Society of Canton, China, which reports were accepted.

The sum of \$500 was appropriated to the Secretary for his services.

The report of the Committee on Nominations of Officers for the ensuing term, as follows, was received and adopted:

President—Dr. W. K. Bowling, Tennessee.

Vice-Presidents—1. Dr. Wm. Brodie, Mich. 2. Dr. J. J. Woodward, U. S. Army. 3. Dr. H. W. Brown, Texas. 4. Dr. H. D. Didama, New York.

Treasurer—Dr. Caspar Wister, Penn.

Librarian—Dr. Wm. Lee, Dist. Columbia.

Assistant Secretary—Dr. Will. Walling, Ky.

Committee of Arrangements—Drs. Edward Richardson, chairman; Lawrence Smith, Robert Gale, James Holland, Henry Bullitt, J. M. Keller, D. W. Yandell, Lewis Rogers, R. C. Hewett, all of Louisville.

Committee on Prize Essays—Drs. J. A. Ochterlooney, L. P.

Yandell, J. D. Jackson, Ky.; Theophilus Parvin, T. M. Stevens, Ind.

Committee on Publications—Drs. F. G. Smith, Wm. B. Atkinson, D. Murray Cheston, Caspar Wister, Alfred Stillé, Penn.; Wm. Lee, Dist. Columbia; H. F. Askew, Del.

Next place of meeting—Louisville, Ky.

Time of meeting—First Tuesday in May, 1875.

Chairmen and Secretaries of Sections for 1875—1. Practice of Medicine,*Materia Medica and Physiology, Dr. Austin Flint, N. Y., chairman; Dr. J. K. Bartlett, Wis., secretary.

2. Obstetrics and Diseases of Women and Children, Dr. W. H. Byford, Ill., chairman; Dr. S. C. Busey, Dist. Columbia, secretary.

3. Surgery and Anatomy, Dr. E. M. Moore, Rochester, N. Y., chairman; Dr. T. S. Latimer, Maryland, secretary.

4. Medical Jurisprudence, Chemistry and Psychology, Dr. Jerome Cochrane, Ala., chairman; Dr. G. A. Moses, Mo., secretary.

5. State Medicine and Public Hygiene, Dr. H. L. Bowditch, Mass., chairman; Dr. H. B. Baker, Mich., secretary.

Committee on Necrology—Dr. A. Sager, Mich., chairman.

Judicial Council—Dr. A. N. Talley, S. C., for two years; Drs. J. R. Bartlett, Wis.; R. H. Gale, Ky.; J. B. Johnson, Mo.; J. R. Bronson, Mass.; B. W. Catlin, Conn.; Franklin Staples, Minn.; W. V. Briggs, Tenn., in place of the seven whose terms expire at this meeting. The rest of the present Council continued.

Special Committees—Dr. H. R. Storer, chairman of the committee to report on American as compared with Foreign Winter Cures, continued.

Dr. John Morris, Baltimore, special committee on the Use of Pessaries.

Dr. John A. Ochterlooney, Ky., special committee on Cystic Degeneration of the Kidneys.

The reports of the Publishing Committee and of the Treasurer were read and adopted. The former asks that, in future, since phonographic reports are made of the proceedings in the several sections, as far as possible only those phonographers educated in the use of medical terms be employed. The latter report shows a balance in hand of more than \$1,925.

A telegram announcing the death last night of Dr. George Mendenhall, Cincinnati, Ohio, an ex-President of the Association, was read, and a committee appointed to prepare a suitable memoir for publication in present volume of transactions.

Resolutions of thanks, &c., for hospitalities and courtesies generally were passed.

On presentation by Dr. Keller (Ky.), it was resolved that, in furtherance of the views expressed by Dr. Gross in his valuable address touching a proper legislation to prevent the spread of syphilis, a committee composed of Drs. Gross, N. S. Davis, J. M. Toner, J. Marion Sims and John Morris, be appointed, to report at the next meeting the most feasible plan for securing such legislation.

Dr. Brodie submitted a paper which he had received (too late for reference to the proper section) from Dr. Paul F. Eve, Nashville, Tenn., recounting some of the remarkable surgical operations performed by Western and Southern surgeons for the first time in history—a full report of which we shall try to give in some future issue, which is omitted now only because of the great pressure upon our columns.

Dr. Wm. Brodie announced that 427 members, and 100 ladies, for the most part the wives of visiting members, had been in attendance, besides the Canadian delegation of 15, and many non-professional visitors.

Mrs. Eliza S. Leggett presented a book written by her father more than a hundred years ago, and also a pamphlet showing that that gentleman was the first to introduce the doctrine of Jenner into this country, and the lancet with which the vaccination was made. Accepted with thanks.

The minutes of the various sections were received and referred to the Publication Committee.

On presentation by Dr. Lee (Phil.), it was resolved that it shall be the duty of the permanent secretary to furnish the Committee on Nominations, immediately upon its appointment, a complete list of the members of the Association and a copy of the minutes of the last meeting.

Dr. H. B. Baker (Mich.) proposed the following amendment to the constitution, which, under the rules, lies over until the next session :

The officers of the several sections shall be nominated by the sections in and for which said officers are to serve.

After other unimportant motions, &c., the President, Dr. Toner, in a few felicitous remarks announced the session to be adjourned *sine die*.

REPORTS OF SECTIONS.

SECTION I—FIRST DAY.—*Practice of Medicine, Materia Medica and Physiology*.—Called to order at 2.30 P. M., by chairman, Dr. N. S. Davis.

Dr. L. D. Bulkley (New York) read a paper on

The Management of Eczema.—Eczema attacks all classes, and demands treatment according to the condition of the patient, etc. It differs from all other dermal inflammations in being a catarrh of the skin. It is divided into acute and chronic stages, but there is no distinct line between them; hence the difficulty in determining when to change treatment. Simple diet may cure the disease. Meat and stimulants add fuel to the flame, and prevent recovery. Fresh air, exercise, bathing and avoidance of fatigue may also effect a cure; although in bathing the water should be modified by alkalies to prevent irritation. Cathartics, if not abused, are often beneficial, while diuretics are indispensable in a large number of cases. Medication should be directed to evacuating the stomach and preventing formation of acid, and to increase the secretions. Tonics should be given; cod liver oil is excellent. Hydrate of chloral and bromide of potassium may be given to induce sleep. As a most valuable prescription, he recommends a mixture of one drachm of potassa, two of tar and five of water, which may be administered internally or applied externally, or both, in quantities to suit individual cases.

True, eczema is properly acute, but may be subacute and chronic. It runs a certain course, accompanied by definite pathological changes, and is often made up of the relics left in the skin—*i. e.*, thickening caused by a deposit of adventitious cells, sometimes extending deep into the adipose tissue. Much that is called eczema is properly only a dermatitis, tending to spontaneous recovery when the cause is removed and irritating agencies kept away. Eczema, in its true sense, is not a local affair, but one intimately associated with blood changes, represented in the main by a sub-oxidation or hyper-acidity, as found in the stomach, kidneys, etc. This state is closely allied to gout, rheumatism and scrofula. Debility, pure and simple, does not cause eczema, but may, by its existence, prevent the recuperative action of nature, or the beneficial effect of remedies. The products of eczema, the thickening and consequent scaling and itching, are removed by stimulating applications, and by such pure tonics as act directly on the nerves, causing absorption through the capillaries, as quinine, iron, arsenic and the like. Arsenic and zinc ointments, while serviceable in many instances,

are so far from being specifics for eczema that their use is injurious in many cases, while almost always other remedies either suffice alone, or greatly assist their action.

In reply to questions, Dr. B. remarked that he had used carbolic acid in one grain pills before breakfast, gradually increasing to four or five grains daily. He had not used carbolate of iron. He also mentioned that Dr. Geo. M. Beard, of New York, had used electricity with good effect, and should try it himself, and advised others to do so.

The paper was referred to the Publishing Committee.

Dr. D. J. Farnsworth (Iowa) read a lengthy paper (for which thanks were voted, with the recommendation that it be published in the medical periodicals) on

Ammonia and its Therapeutical Applications.—After detailing its chemical composition, early history as a medicine, and its physiological action, [all of which are to be found in the usual text-books in much better form], Dr. F. mentions a case in which respiration was suspended during the administration of chloroform; he used hypodermically aqua ammoniæ gtt. iij, diluted with water. The patient at once rallied, and completely recovered.—In a case of bronchitis in a debilitated patient, an opiate had incautiously been given; the secretions were checked, and asphyxia seemed imminent. He injected under the skin aqua ammoniæ, gtt. v, diluted with water, $\mathfrak{z}\text{i}$, with the immediate effect of arousing the circulation. A large quantity of mucus was discharged from the lungs, and the arterial color of the circulation returned. The patient recovered under two administrations of carbonate of ammonia and alcoholic stimulants.—In the case of a man who had taken about 10 P. M., over an ounce of laudanum, to whom Dr. F. was called the next 4 A. M., he found the extremities cold, respirations from 4 to 6 a minute, pulse full, lips livid, and consciousness could not be aroused. He injected aqua ammoniæ, gtt. iij, properly diluted, into the arm, with the effect of increasing the respirations and improving the color of the circulation. A second injection, with the use of other means, was followed by recovery.—In a case of shock from railroad injuries, with pulse hardly perceptible, and stomach so irritable that it would scarcely retain anything, inhalations of chloroform were alternated with those of ammonia. Anæsthesia was readily induced, and the crushed leg removed. Reaction soon followed, and the patient recovered.

In catarrhal lung diseases of children, Dr. F. relies chiefly on the carbonate. With due caution, opium (preferably Dover's

powders) may be combined with it. Simple diarrhœa and cholera infantum will also yield more readily to this combination than to other remedies—the ammonia acting as an ant-acid, and at the same time keeping up the bronchial secretion. Dr. Stierlin treated about 150 cases of catarrhal pneumonia in nurslings with the carbonate; he lost only 7 cases, 5 of which were seen for the first time after atelectasis had occurred. If the patient is under 8 months old, the ammonia is given alone from the first—sinapisms being also employed; but if older and stronger, an emetic is first given, then the patient is wrapped in a wet sheet, and ice is applied over the chest—the ammonia being given on the second day. Great alleviation of symptoms and decrease of fever immediately follow. In measles, varioloid, the latter stage of scarlatina, and in erysipelas, nothing affords so much relief as a mixture of the carbonate and Dover's powders—ipecac being substituted for the latter if the patient is very young. In adults, the muriate acts better, and is *preferable* in children with scarlatina.

Dr. A. Patton treated 309 cases of pneumonia (*Amer. Jour. Med. Sci.*, Oct. 1870) with carbonate of ammonia, grs. v to x, every two hours, and lost only 8. Dr. F. has adopted this treatment, with the addition of from two to five drops of saturated tincture of veratrum viride every three hours, with the happiest results.

The cure of whooping cough by taking patients to gas works, about which so much was said some years ago, was due to the free ammonia inhaled. However, this disease is self-limiting, and is more amenable to anti-spasmodics and nerve-sedatives, as the bromides—ammonium bromide being preferred to the potassium bromide.

A separate consideration of ammonium chloride (muriate of ammonia) is necessary, as it probably owes its medicinal virtues as much to chlorine as to ammonia. The chlorine gives it alterative properties, and modifies its expectorant qualities. Sunderlin, speaking of it, says: "It exerts a sedative influence on the system, diminishes the plasticity of the blood, and promotes glandular secretion and the absorption of fibrinous exudation." The more recent investigations of Booker tend to support this theory. Dr. F. is convinced, from repeated trials, that no medicine exerts so beneficial an effect in chronic catarrhal and bronchial affections—one to ten grains giving the greatest relief. In simple pneumonia, he prefers the carbonate; but if complicated, he combines the muriate with it. In this disease, as also in bronchorrhœa, Dr. H. C. Wood, Jr., has ob-

tained more apparent good from the muriate than from any other remedy.

Inhalation of muriate of ammonia is most decidedly beneficial, and affords very speedy relief in asthma and bronchitis. A bottle containing muriatic acid is connected with a bottle having a tube and mouth-piece; a third bottle containing aqua ammonia is connected with this. Inhalation through the mouth-piece brings the gases from each bottle, which unite in the tube. This method has been successfully tried in aphonia from cold or catarrhal affections. Nasal catarrh is also benefited by this treatment.

As to the application of muriate of ammonia to nervous diseases, Dr. Anstie specifies them in the *Practitioner* (December, 1868): "Myalgia is speedily amenable to it in doses of grs. x to xx. Various neuralgias are speedily cured, such as migraine clavus hystericus and facial neuralgia. In intercostal neuralgia, especially in that form met with in nursing women or in phthisical patients, the remedy is of great value, frequently relieving the patient in half an hour. It may be used with advantage in the milder varieties of sciatica, which occur in young and debilitated patients, and in that somewhat obscure form of neuralgia termed hepatic." He thinks it is the most powerful of all functional restoratives of suspended secretions. He especially recommends it in those cases where the disease is produced by severe and exhausting mental excitement. He mentions several instances in which two or three doses of grs. xx. have caused a marked recommencement of suspended biliary secretions. He gives as a theory of its action that "it is a pure tonic stimulant to sensitive vaso-motor nerves." Dr. F. thinks in these cases it is the *stimulant* properties of the ammonia and the *alterative* properties of the chlorine which effect the good result.

Dr. Cholomdey followed Dr. Anstie with a paper confirming, from an experience of 15 years, its good effects. He has used it successfully in neuralgias of the fifth pair of nerves, facial neuralgia and hemicrania; nervous headaches, such as occur in some patients after violent emotions, or strain of the nervous system; in sciatica and lumbago, and in the painful sequels of rheumatic fever. He further states it to be a powerful emmenagogue in amenorrhœa. In cases of nervous and delicate women it may be advantageously combined with perchloride of iron. It is also beneficial in cases of dysmenorrhœa occurring in nervous or rheumatic patients, and in the various ailments that accompany the change of life in women.

Chloride of ammonium has long been used by German physicians as a substitute for mercury. It is a decided and power-

ful excitant of the secretions of the liver. It is alterative and resolvent; according to Headland, a nerve sedative, a stimulant to the secretions and an eliminative medicine.

Dr. Budel found muriate of ammonia useful in scrofulous disease of the liver. In an extensive epidemic of jaundice which occurred in Dr. F.'s practice, he had excellent success with this agent. It was in every way preferable to mercurial treatment which was used by his neighbors. Under its influence the bowels became relaxed, and the secretions from the liver were established.

In conclusion, he regards ammonia as a nervous stimulant when taken into the system, and being excreted by the lungs, stimulating the secretions of that organ and the bronchi, and producing a slight action on the skin. It is neutralized by the alkalies, unites with carbonic acid, and in the system exists as a carbonate. It is discharged in the form of a bicarbonate, taking the carbon from the blood. It is a typical expectorant, and one of the most valuable we possess. It may be used in all forms of bronchial diseases, and also in any disease complicated with bronchial obstructions, or where there is morbid matter of a volatile nature to be eliminated. From its transient character, it may be used in febrile states, as well as debilitated; in sthenic cases because it removes obstructions; in asthenic states because it stimulates the nervous system and assists elimination.

It is sometimes misapplied in low forms of disease, where decomposition is taking place and ammonia is being generated in the system, as happens often just before death. "This is to be avoided by taking care not to confound *nervous force with vital force*. When there is a failure of *nerve force* it may be stimulated to action; *where there is a failure of vital energy no stimulant will serve to prolong life, for it cannot communicate fresh vital power.*"

The therapeutical indications for ammonia are where a transient nerve stimulant is required, as in syncope or shock; in cases of partial asphyxia from any cause; also, where we require a stimulant expectorant, in deficient or inspissated bronchial secretion, where there is insufficient force in the lungs and carbonization of the blood, and where we wish to aid in the elimination of volatile poisons.

In chloride of ammonium, the indications are where we wish for expectorant and alterative properties, with less of exaltation of the nervous system, and where we require an increased action of the liver and a sedative and tonic effect on the nerves, its properties being probably due, in a great measure, to the chlorine. Adjourned.

Second Day.—Dr. Carpenter presented for Dr. R. A. Vance (N. Y.) a paper on the

Management of the Encephalic Circulation.—An unnecessary amount of space is given to the general anatomy of the skull and brain; while the already familiar experimental researches of His, especially regarding the existence of perivascular lymphatic sheaths, in the gray nervous matter in particular are detailed too much at length. The peculiarities of the cerebral circulation, including the various disputed points are thus summarized:

1. Atmospheric pressure operates in such manner as to keep the fluid contents of the skull at all times the same.

2. The heart can, under certain circumstances, exert a compressing influence upon the encephalic structures.

3. The relative quantities of arterial and venous blood and extra vascular serum vary with (1) the cardiac contractions, (2) respiratory movements, (3) sleep and wakefulness, and (4) mental excitement and repose.

Dr. F. R. Buckham read a paper on

Uræmia.—He maintains that this condition can and does exist, independently of albuminuria, without the destruction of a single tubulus uriniferus; without a trace of albumen in the urine, and without any evidence of disease of the kidney whatever; that, consequently, when the two conditions are found together, they simply co-exist; and that a much greater number suffer from uræmia who have neither Bright's disease nor uræmic eclampsia, than are to be found who have either or both of these diseases.

His attention was first called to the subject while attending an albuminuric patient, who died. During this time he saw in consultation a friend whose symptoms corresponded so exactly with those of the first that he and the attending physician feared Bright's disease. On examination of the urine, however, not a trace of albumen, nor a tube cast, nor any pus, nor anything else to indicate organic lesion of the kidneys was to be found. Moreover, less urea (37 grains to the ounce of urine) was found than in the first case, of which an analysis was made at the same time. To guard against possibility of error, the analyses were repeated in different ways, but always with the same result. Since that case, within the past six years, Dr. B. has made nearly 800 quantitative analyses for urea, which demonstrate that uræmia does exist in many of our every day diseases, and that, too, where there is no disease of the kidneys whatever. But granting that uræmia is always present in the

advanced, or indeed in any stage of albuminuria, it does not follow that it must be a sequel of that disease; by a parity of reasoning the inverse would be the more probable.

The question naturally arises if it is the function of the kidneys to eliminate urea, and if those organs are healthy, why do they not perform their duty? It is because, by the disorder of some other organ, solids in a state of liquefaction may be so much increased in the blood that the kidneys, in trying to eliminate them, are, so to speak, compelled to neglect a part of their ordinary duty. Consider the amount of sugar eliminated in diabetes or bile in jaundice. Is it any wonder that urea should be allowed to accumulate while the sometimes enormous quantities of sugar or bile are being excreted? It may be urged, however, that diabetes and jaundice are of rare occurrence. Granted; but is biliousness (jaundice in miniature) very uncommon? Take into account, also, the triple phosphates in overwrought nerve centres, etc., is it wonderful that in performing so large a vicarious labor that the ordinary work of the kidneys should be imperfectly performed? In dyspepsia, where nitrogenized food stops short of complete metamorphosis, there is "destructive assimilation," and in such cases the kidneys have to eliminate not only the urea generated by the disorganization of the tissue of the living organism, but that also produced by imperfect digestion; and while all acknowledge the noxious effects of uræmia in complete suppression or retention of urine, why deny it in part when there is partial suppression or retention? Why acknowledge it as a whole and deny it in its parts, as it is axiomatic that "the whole is equal to the sum of all its parts.

'Would it," says Dr. B., "a *priori*, be considered strange that with a full, bounding, rapid pulse, increased temperature, skin dry, urine often very scanty, as is common in our fevers, that uræmia, in some degree, shall be present, and that the fever should be modified by its presence? I have no doubt that often the low muttering delirium of such fevers is due directly to that cause, and that many cases of so-called muscular rheumatism and neuralgia ought properly to be designated uræmia. I have on that theory treated and relieved both the last named maladies that had resisted appropriate remedies for rheumatism and neuralgia prescribed by eminent physicians. I have also found many cases of epilepsy, and some forms of spinal disorders, due entirely to, or much aggravated by the same cause; and in cerebro-spinal meningitis, I believe it will yet be found that uræmia exerts a very marked influence, if it is not directly the cause. I made careful examination in that

direction in a few cases, but they were too few in number to justify the expression of any opinion from my own limited personal observation. I do not claim to be the only physician who believes that uræmia is not dependent upon albuminuria (although I so believed when I commenced the investigation, and for some years afterwards), as I now know that Bedford and some others have expressed that opinion; but such views are not published, as far as I am aware, in any work that the general practitioner would be likely to have or look to for information on the subject. Bedford himself apologizes for misplacing his article on that subject in his work on 'Diseases of Women and Children,' and *then* it is simply an enunciation of the fact, to which he appears to attach no practical value."

Third Day.—Dr. L. D. Bulkley read a paper on a

New Anti-Pruritic.—He stated that 18 months ago he presented to the profession the *liquor picis alcalinus* (℞. Picis liquidæ, ʒij; Potassæ causticæ. ʒj; Aquæ, ʒv.—M. Ft. sol.), which had proved to be valuable in relieving itching in certain cutaneous diseases. The failure of this preparation, however, to relieve itching in some cases, led him to try the following, which has thus far rendered inestimable service, *except* where the skin is broken:

℞. Camphor chloral..... ʒij.
Unguent. aq. rosæ..... ʒj.—M.

Alcohol, ether, olive or almond oil, etc., may be substituted for the cold cream. It is recommended in the pruritus of pregnancy, neuroses, senile atrophy of the skin, eczema and lichen. He cited some cases in which it had been tried very satisfactorily.

Dr. Garrish (New York) read a very interesting paper on *Hydrophobia*, reviewing the literature, &c., of the disease, but added nothing to the treatment.

Dr. E. W. Gray (Ill.) read a paper on the *Relations of Physiology to the Practice of Medicine*, which was referred to the Publishing Committee.

SECTION II.—Obstetrics and Diseases of Women and Children.—This section was in session regularly, and the proceedings were evidently of great practical value to the profession. Had there been no other attraction, the fact that Dr. J. Marion Sims was in daily attendance and took part in many of the most important discussions which arose, would of itself have

given especial interest to the transactions of this Section. At all events, it increases our regret that, because of the meagre reports in hand, we are unable to give an intelligible synopsis of the proceedings of the several meetings.

SECTION III—FIRST DAY—*Surgery and Anatomy*, Dr. S. D. Gross, chairman.

Dr. A. Dunlap (Springfield, Ohio,) read the report of a case of

Enchondroma over the Sternum, which he saw first in September, 1870. The enchondroma then involved the whole width of the upper and middle third of the bone; its highest elevation was about an inch and a half; firm and slightly nodulated. It was discovered about 14 years before, after an attack of fever, but it had only begun to grow in the past 2 years. It was not painful; glands not involved; no disturbance of breathing or circulation; general health good. Dr. D. advised against present operation, but to have it removed if it enlarged or caused trouble.

Dr. D. next saw him November, 1872; tumor more nodulated; the top elastic, with large veins running over it; base very firm—nearly covering the chest, and projecting 6 or more inches forwards. No involvement of skin, glands, respiration or circulation; general health bad.

He was anxious to have it removed, but circumstances delayed the operation until April 14th, 1872. The tumor had grown rapidly, ulcerated and formed a deep central cavity. Health failing, though no trouble with breathing, pulse or glands.

The patient being anæsthetized by a mixture of alcohol, ether and chloroform, the tissues around the base of the tumor were dissected off, and the sides of the base were removed with the chain saw. Over the middle portion of the sternum, a space that seemed to be the anterior mediastinum was opened. The upper portion of the tumor was left, to which the clavicles were attached. The wound was closed by sutures. He recovered quickly from the anæsthetic. Opiates and quiet for a few days, then tonics, was the only treatment. The wound healed by first intention to a great extent. The opening through the sternum filled with granulations, but the portion of the tumor between the clavicles sloughed, disarticulating the clavicles from the sternum.

In 4 weeks, he could walk across the room; but it was difficult for him to hold up his head, owing to mobility of the clav-

icles. Removal of pieces of spongy bone left the wound nearly 2 inches deep. Appetite good; slept well, and he was hopeful.

For two weeks longer he continued to improve in strength, but the wound deepened and spread by portions of necrosed, spongy bone coming away. On May 18th, he was taken with pleuritic pain in the right side, which left him on 20th. On 21st he felt "a 150 per cent. better than he had been at all." But in dressing the wound, a loose sequestrum, about an inch square, was found in the bottom of the cavity, a little to the left. When removed, it left an opening $2\frac{1}{2}$ inches deep below the sternum, which opening extended into the left pleural cavity on 22d, when he was seized with severe pleuritic pain (but no cough) on that side, extending from the sternum to the spine. Died 23d. The tumor (weight 5 pounds) filled the mediastinum, and lay directly upon the heart and aorta, being adherent to the latter. Microscopic examination of the tumor revealed simple cartilaginous cells, with fibrous tissue passing through it.

Report was referred to Publishing Committee.

Prof. E. M. Moore, M.D. (Rochester, N. Y.), read a paper on **Epiphyseal Fracture of the Superior Extremity of the Humerus.**—He said that in general the true nature of this injury is unrecognized, although the symptoms have been clearly stated by Sir A. Cooper, Profs. R. W. Smith and F. H. Hamilton. The symptoms are striking and uniform. The head of the humerus can be distinctly felt in the glenoid cavity, with a slight depression beneath it. The shaft is so inclined as to carry the elbow a little backward and outward, which projects but little from the side, and can be readily brought in contact with it; while the superior end of the shaft is brought forward so as to make a smooth prominence, less rounded than the head and lower down, usually found $1\frac{1}{2}$ inches (at the age of 12 or 14) below the acromion, and near the coracoid process. The curved line from the acromion down to the projection has a long sweep, instead of the small sphere of the natural head. This appearance is pathognomonic, and may be safely trusted in diagnosis without insisting upon crepitus. As in other epiphyseal fractures, this is not clear and sharp as when the fracture is of bone, but is muffled. When the arm is moved gently and without grasping the head, the peculiar lock of the surface is sufficient to cause the head to rotate, and thus the timid practitioner fails in getting his pathognomonic sign; but if the head be firmly grasped it cannot only be felt in the glenoid cavity, but this muffled crepitus will be had by rotating the humerus or by carrying the elbow inward, and thus rubbing the two surfaces on

each other. In addition to these striking symptoms, we may add a shortening of half an inch or a little more. The shaft seldom clears the head, hence the small amount of shortening. When the two shoulders are inspected from behind, the impression given is that of luxation, for there is a slight flattening of the shoulder produced by drawing the fibres of the deltoid a little forward. The breadth of the shoulder is also increased when seen in profile. The motions of the arm are somewhat circumscribed; the ability to carry it upward and forward as well as upward and outward is impossible much beyond a right angle with the body, but affects the rolling of the scapula so that the hand can be placed on the head. Pressing the upper end of the shaft outward while holding the elbow to the side, and making extension and counter extension, the deformity disappears, to recur as soon as left to unopposed muscular action. Diagnostic points are the projection beneath the coracoid, and the immediate recurrence of the deformity when the means for reduction cease retaining the shaft in place, there being no fracture of the superior end of the humerus in which retention is so difficult.

Reduction is effected by carrying the arm forward and upward to the perpendicular line. Retension is effected by moderate extension while bringing the arm down by the side, maintaining this slight extension until dressings for the purpose of continuing it are applied. Swinburne's method fulfills the indications easily and perfectly. Even if not restored, the arm soon becomes useful, and nature gradually rounds off the prominence of the diaphysis and elongates the capsule at the lower border, allowing the motion upward to improve.

Case 1.—John Duff, aged 14, fell on his right shoulder. Seen 2 hours after by a well instructed physician, who considered it a dislocation. Violent traction was made by two men, but when the extension ceased the deformity re-appeared, although the supposed dislocation was thought to be reduced. Next day sent to Dr. Moore. The bandage was worn 4 weeks. The restoration is absolutely perfect.

Case 2.—Nellie C., aged 16, fell from a tree, striking front of shoulder. Was seen by her family physician, who recognized no displacement. Fourteen days later was seen by another of great eminence with like result. A third thought there was luxation. Dr. M. saw the patient 17 days after the accident. After reduction, applied Swinburne's dressing, which was worn about two weeks. A year afterward the result was found quite perfect.

Case 3.—Charles B., aged 6, fell on his shoulder. A physi-

ciap, having diagnosed luxation, put him under ether, but found motion perfect without crepitus, and supposed the deformity resulted from ecchymosis. I saw him at the end of two weeks, when the deformity was more marked, the swelling having subsided. The boy was the subject of infantile paralysis during his second year. The shrunk muscles allowed of almost absolute demonstration. Adhesions broken up under ether, when the muffled crepitus was plain. Restoration reported perfect three months afterward.

Case 4.—Michael M., aged 18, fell, injuring left shoulder. A physician supposed a dislocation had occurred. Four days later, was carried to Dr. Little, of New York, who observed the projection under the coracoid, but found scarcely any shortening. Under ether slight extension removed it. Failed to reduce deformity. Dr. L. took the patient to Dr. Moore. Adhesions broken up under ether, and reduction effected. Three months after injury the movement of the joint was perfect except that he could not raise it as high as the other, but was still improving.

In reply to questions and remarks, Dr. M. stated that he had twice reduced this fracture at the end of two weeks, but did not know that it would be possible to do so at the end of four weeks. If adhesion occurs, break it up if possible.—Epiphyseal fracture occurs only before ossification has occurred, the age for which differs. From Sir A. Cooper's and R. W. Smith's reports he had supposed 16 to be the limit, but Hamilton's case gave the symptoms at 19. Ossification may not be complete until the 25th year. During adolescence the epiphyseal line is the weakest place, and hence fracture is more likely to occur there. During this age suspect epiphyseal fracture. This fracture is not like any other, because it has a specific and definite line, while other fractures have an indefinite line through the anatomical and surgical necks, or through the tubercles.

In explaining why this fracture is so liable to be mistaken for fracture of either neck, Dr. M. stated that when the bones are brought into place they are held by the action and pressure of the muscles. The head rolls around, but does *not* produce the pathognomonic crepitus—at best getting only a muffled crepitus. Again, we have mobility, not found in dislocations. The error in diagnosis was because the profession did not know what to make of it. The error should not be made because of the prominent projection, and because the forces acting upon the fragments are uniform. We do not have this projection in fracture of either anatomical or surgical neck.

Dr. Gregory, of St. Louis, asked whether necrosis of the ar-

tication had occurred in a case mentioned, which had been examined six months after, to which Dr. Moore replied in the negative.

Dr. L. A. Sayre (New York), appointed two years' ago to make a report on

Fractures, said he had prepared a lengthy paper on the subject, but would not read it.

He said that in the past few weeks there have come to his knowledge three cases of compound fracture treated in the almost obsolete rule of waiting nine days for the swelling to subside. A fracture should be reduced as soon as it occurs, or as soon as it is practicable, and the bone should be perfectly adjusted at once. It is wrong to wait until the swelling subsides before any effort is made to reduce it. All that is necessary in any fracture is extension and counter-extension in the right direction, so as to have accurate adjustment. In all long bones it can be done with ease. There is no vacuum in the thigh, for example, and if the femur is removed, it leaves the mould of its form there if sufficient extension and counter-extension are made with perfect accuracy of adjustment. If extension greater than normal be made, it causes reflex contraction and irritation; but if only enough for adjustment, all is quiescent. After adjusting it, we may have just enough fixation for accurate retention. Gutta serena, as a means of retention, should be done away with, because of the foul odor produced; but we might use starch bandage, plaster of Paris, or leather. In compound and complicated fractures the principle is the same—even in the extreme case of severe mangling from railroad injury. With perfect adjustment we have no pain. We can also send the patient into the open air.

Again, most authorities state that in fractures of the long bones, particularly if oblique, we are to expect deformity. Some say it is quite impossible without it. He thought this wrong, and the sooner corrected the better. Statistics proving shortening should only be disinterred to assist in defeating suits for malpractice. Fracture occurring, the muscles contract and produce distortion of the vessels and nerves, the ends of the fragments causing irritation and inflammation. In point of fact, the limb should be longer by the thickness of the matter between the ends of the fragments. Of 115 cases treated in Bellevue Hospital last year—statistics of which were prepared by House Surgeon, Van Wagner, 111 show that there was less shortening of the limb than any like number of cases on record. True, some of them are 1-16 or $\frac{1}{8}$ inch shorter, but some are

longer. Excluding one of 2 inches shortening, a second of $1\frac{3}{4}$, and one of $1\frac{1}{2}$ —these cases suffering respectively from abscess, delirium tremens and pneumonia, which had kept the patients in a horizontal position, and thus had permitted shrinkage and consequent shortening—a very highly favorable average was obtained.

Discussion being in order, Dr. Hodgen (Missouri) objected that if a thigh be placed in the plaster of Paris splint in the straight posture, the muscles on the back of the thigh will be tense, and in front lax. We cannot bring *all* the muscles to a state of normal extension at the same time, and hence a position in which there would be no reflex irritation would be marvelous. In general, spasmodic contraction would occur. Besides this, the calcarious matter at the end of the fragments would soften and tend to produce shortening. If a fracture be oblique, something more than plaster of Paris is needed—otherwise not.

Dr. Sayre had said that extension and counter-extension should be made in the proper direction, and then on no side would any muscle be stretched. All he had claimed was that it was better to start out with the idea that we could secure perfect results rather than that we must necessarily have shortening. In fracture of the femur, we are to have the thigh piece capable of being lengthened or shortened if treated upon the inclined plane. This was first accidentally ascertained by Dr. Nelson, of Lower Canada, where a lumber-man had both thighs broken, and by chance had got upon a ledge of rock whose width was precisely the length of the thigh—such being the relief of pain that the man had fallen asleep. Taking the hint, he made an inclined plane to suit the thigh, and had a perfect result at the end of two months. Dr. Nelson was then sued for the alleged malpractice of keeping his patient unnecessarily confined, and had to flee his country.

Dr. Gregory (St. Louis) was astonished that a gentleman of the profession from New York should come here and state that a compound fracture could occur and be reduced without shortening of the limb. He had never seen a case of this except in young people. The inflammatory process necessary to the adhering of the fractured bones renders it necessary that it should be shorter. He thought Dr. S.'s results barely possible, and he wanted further evidence. Again, precise adjustment was practically impossible—the reverse was all talk, and might do to tell *students*. Plaster of Paris has the advantage of allowing patients to go about, but he thought the best results as regards

proper length would be obtained by the use of extension and counter-extension. He thought plaster of Paris just as suitable in treating injury of the soft parts as of bones. Adjourned.

Second Day.—Dr. A. Garcelon resumed the discussion on Dr. Sayre's report.

While he thoroughly agreed with Dr. Sayre in striving to secure a perfect limb in cases of fracture, and also in aiming at a perfectly accurate adjustment, his own experience showed him the difficulty of succeeding in the latter attempt. He believed *no distinct and definite rule* of treatment could be laid down, which would give such a series of results as were given in the statistics submitted by Dr. Sayre, for they show a most wonderful absence of shortening. In the case of an oblique fracture, where there is contraction of the tissues and slipping of the bones, how are we to prevent the shortening of a limb without extension and counter-extension? The cases of really transverse fractures are rare, though many fractures are called transverse which are more or less oblique, and are called transverse because of their remaining in place, when adjusted, without difficulty. He wished to know how to measure a limb with absolute accuracy. He had been present at many malpractice trials, and had found the opinions of the best surgeons differing materially. When he was a student, he was taught to measure through the median line, commencing at the sternum and thence downward over the navel. If one applies the measure to the trochanter, how can he be certain of a satisfactory result? In oblique fracture, how are surgeons to extend and arrange the broken fragments so as with certainty to replace them precisely in their original positions; and if they succeed in that, how shall they keep them there? If the position taken by Dr. Sayre is accurate, then the medical profession have much to learn, and the public much to complain of.

Dr. G., in reply to questions, remarked, in the use of the word *oblique* fracture, he referred to those cases in which the ends of the bones overlap each other.

He stated the case of a girl who was of such constitution that he feared to apply the usual dressings to her fractured femur, and whom he had placed upon a flat bed, using the pully only, and had met with a successful result. He had taken no means at all to prevent her slipping down in bed, and had used no counter-extension.

Dr. Sayre said he had seen this done in cases where, by raising the foot of the bed, the body acted as a counter-extension, but he had never seen it on a level bed.

Dr. S. D. Gross said he used, in preparing his bandages, a solution of silicate of potash and silicate of soda, which dries rapidly, to which he gave a preference over plaster of Paris, and a decided preference over starch, to which he was strongly opposed. As to whether there was necessary shortening in oblique fractures of the femur, he favored the view that a certain amount of shortening was necessary.

Dr. Reed (Ohio) thought in every case there must be shortening, and he took the ground in cases of apparent absence of this defect, nothing could be known to a certainty. He never yet had seen a skeleton in which the corresponding bones had been perfectly equal in length, nor one in which the difference had been less than 1-16th inch. Even the text-books are not correct on this point; and in Horner's *Anatomy* the text says the corresponding bones on opposite sides of the body are equal, while a foot-note contradicts it.

Dr. Whiting (Wis.) had been surprised at the position taken by Dr. Sayre; and the idea that the theory of the necessary shortening of the long bones in cases of oblique fracture being exploded, alarmed him. With the records of the profession for the past fifty years before them, practitioners had no right to expect such results as those reported from Bellevue Hospital; and if he was compelled to accept the theory, he would, in self-defence, be compelled to retire from the profession. He considered that if a fracture was restored with a trifling of shortening it was successful; but if physicians from New York come and say that a fracture should be reduced without shortening of the limb, it might place the Western physician liable to prosecution for malpractice.

Dr. Quimby (Jersey City) did not believe that any surgeon thought himself able to restore 1 fractured femur in 10 to its original length; an absolutely accurate measurement was practically impossible. The proposition of a perfect cure seemed to him too absurd to require remark. He had seldom seen a case of less than $\frac{1}{2}$ inch shortening. He adverted to the danger of suits for malpractice, and cited a case in which he knew that a brother practitioner had narrowly escaped a suit when the difference between the length of the limb was only $1\frac{1}{2}$ inches. The limb might have been the shorter of the two before the accident. He cited the instance of his own child, in whom, without any perceptible limp, there was a natural difference of $\frac{1}{2}$ inch in the length of the limb.

Dr. Hughes (Iowa) did not question the veracity of the statistics, but if they were true he considered them simply wonderful.

Dr. Waterhouse (Wis.) said if these statements are true and these figures accurate, then let us face the situation, and let the danger of suits come. There is a reason for this unheard of success at Bellevue in the appliances at hand, and the constant attendance and care available, which country practitioners can never enjoy; and suits for malpractice are generally brought in the country. Backwoods doctors scarcely ever have proper appliances, and cannot possibly give cases constant personal care. He had treated many cases in which, with better appliances, he could have produced better results. As to patients sliding down in bed, that was a thing which regulated itself; in a short time the hips of a patient would produce a depression in the bed which would prevent slipping.

Dr. Pierce (Ill.) thought if surgery has made such advances it should be declared. Literature in the profession is authority in courts of law, and the later the volume the more weighty its authority. This Convention is making literature which will be evidence in the courts, and it is important that that fact should be known. He was startled when he heard that the day of shortening had passed, for he had always had it in his practice. He was prepared to admit the absolute accuracy of the statistics from Bellevue Hospital presented by Dr. Sayre, but he thought *the measurements were taken too soon*. They were taken when the patient was pronounced cured, while suits for malpractice are scarcely ever brought until after the lapse of months; and in his opinion *shortening goes on after discharge*, and when the limb is in use. He was called to treat the young son of an intelligent mechanic for an oblique fracture of the femur. He explained the whole matter with reference to the possible deformity to the father, who united with him in his efforts to prevent it. Frequent measurements were taken, and when the child was pronounced well there was not the least shortening to be discovered. Some time afterward the boy was accidentally shot and killed. Dr. P. was called in to make a *post mortem* examination, and found that the bone was $1\frac{1}{2}$ inches shorter than it should have been, and that the ends had slipped and perceptibly overlapped. He now has it in his possession. He did not believe any patient could be induced to wear apparatus long enough to absolutely prevent contraction, and he thought the loss of only half an inch should be considered a good result.

In continuing his remarks, Dr. Pierce described and advocated the use of the "book," or Bavarian splint, which is particularly adapted to fractures of the tibia and fibula, in which

cases it is convenient and easily applied. This splint can be made by any one who has two pieces of flannel, a needle and thread and some plaster of Paris, or the silicates already mentioned by Dr. Gross. The method of construction and application may be illustrated as follows: Place two pieces of flannel (long enough to reach the desired distance, and wide enough to envelop each other) upon each other, and stitch them together longitudinally through the centre, and they will then form four leaves. With two of these, envelop the limb and fasten them together on top, the seam being underneath; this is to keep the plaster case from touching the skin. Upon the other two leaves spread the plaster, and bring them together on top, moulding them to the limb; and when the plaster becomes hard there is a plaster box the exact shape and size of the limb, which can be opened at will, the seam at the back serving as a hinge. With this splint the limb can be looked at every day, and in case of swelling or shrinkage of parts, a new one can be adapted to the changed condition. The use of this splint has been recommended in fractures of the femur, but he had been afraid to try it, although for injuries below the knee he thought it unrivaled. It was recommended for use in compound fractures, a hole being left to allow the escape of discharges, but in such cases he used the fracture box.

Dr. Sayre stated that he had been *grossly* misunderstood by many. He had made remarks upon statistics prepared by Dr. Van Wagner, of the Bellevue Hospital, and they were all true. Dr. Frank Hamilton, who, until recently, would not admit that a fracture could be reduced without a shortening, made all the measurements of these cases in the Bellevue Hospital. Dr. Hamilton said if seven successive cases would be presented he would agree to give up his opposition to the theory. He found the cases and surrendered. The surgeons of the hospitals are to be credited with the honor of producing these results; but the hospital stewards, who were careful to get a correct adjustment of the bones before they were bound in place, deserve credit to a great extent. In all cases of fracture it is necessary to have the proper extension and counter-extension, and they should be immediately applied, without waiting for nine days, as some physicians have recently been doing. If the swelling will prevent the use of plaster of Paris, extension and counter-extension can be kept up. There is no necessity of any patent apparatus. The bones should be put in proper place, and kept there. He thought the Bavarian splint was very good, but there is a danger of shortening taking place while the physician is taking it off to look at it. When a fracture is well adjusted, leave it

alone. He recommended that the patient be got out as soon as he can after the fracture takes place, as the exercise is beneficial. The statements that accuracy of measurement was impossible had astounded him more than a little. He called attention to the accuracy of measurement by which the stones in the very building in which they now sit had been measured and cut by one set of men, and perfectly matched by another set. He claimed that there is never irritation of the muscle when there is only normal traction. If there is only enough extension to produce a normal condition, then there is retention—*fixation*. Too much extension is abnormal, produces irritation, and is often the cause of non-union. Extension and counter-extension should be applied the instant of seeing the patient, and then—*fixation*. There are no circumstances when something cannot be found to effect this. Machinery is the curse of the profession, and there is scarcely a country doctor who has not in his office a lot of worthless and expensive machines called “surgical appliances.” In setting a limb, the assistant who holds it in position while the surgeon is applying the bandages, is in the most responsible position. If there is a single continuous piece of skin (no matter how crooked or narrow) for a guide, then the limb can be put in position, be held by an assistant and properly attended to. In thigh fractures, he used the triple inclined plane. He disclaimed any desire to “lay down the law,” and concluded by claiming that a discussion of this kind would not have the authority of a carefully written book.

Dr. Pierce stated that in opening the Bavarian splint to look at the limb he only removed one leaf at a time, and that he had the limb held in position by an assistant; that he considered it important to look at the limb, verify adjustment, and see its general condition. He adhered to his statement as to the impossibility of making accurate measurements, and stated that he did not believe there were any seven men in the room who would agree on a measurement of the distance between the two entrance doors.——He was called upon to amputate an arm necessitated by a starch application applied to a fracture. He thought there was some danger attending the use of this material.

Dr. Sayre was asked how to treat the fracture of the hip of a fleshy child 3 or 4 years old. He explained by taking a piece of paper and making a diagram of a bed on which to place the child, allowing its leg to hang down over the edge, and said that in this way he had cured a child of a fractured hip without the application of any bandage. It is remarkable how quickly the bones of a child of that age will

unite. Treatment with plaster is difficult, because children are so fat that shrinkage of the limb is certain, and it will rattle about in its plaster case like a pea in a box.

Dr. Garcelon: "How do you keep the child from twisting about?"

Dr. Sayre: "They find out what hurts them, and it is an astonishing fact that they like to be comfortable."

Dr. G.: "What do you do in case of an ununited fracture?"

Dr. S.: "Rub the ends of the bones together, twist them around, and break things generally."

Dr. Gregory said he was astonished at hearing Dr. Sayre's remark about fearing displacement in case of removing the Bavarian splint, and asked if he thought he could put plaster on any limb so tight as to prevent muscular action and contraction. There is no such thing as quiescence in the muscles; there is always tonic action tending to contraction. As long as the muscles live, they will act, and will force the fractured bones past each other. He insisted that extension and counter-extension would not prevent this, in addition to the cicatricial contractions. He concluded by saying: "I again assert that the man who believes he has done it is simply mistaken. I think Dr. Sayre himself believes what he has said."

Dr. Langdon (Mo.) wished to correct Dr. Sayre in a matter of fact. The system of treating fractures by flexion was inaugurated about the middle of the last century, and was once very popular. He believed with Dr. Sayre that perfect cures can be effected, and that the profession should strive for perfection.

After other wandering discussion, the paper was referred to the Publishing Committee. Adjourned until to-morrow.

Third Day.—Dr. Geo. M. Beard (New York) made some remarks on

Electrolysis.—Some six weeks since, he was called to treat a case of *goitre*, where the measurement around the neck was $16\frac{1}{2}$ inches. He commenced treatment with electrolysis, the needle being passed into the centre of the tumor. In one week $\frac{1}{2}$ inch was gained; in five weeks $1\frac{1}{2}$ inches, which, in effect, amounted to a cure. He used only mild currents, combined with general Farradization. The result, therefore, was due to the combined effect of different kinds of electricity.

The great majority of cases of this kind will become reduced 10, 15 or 20 per cent., and will become stationery. Even in the case referred to above, the reduction of the last quarter inch consumed as much time as all the rest of the cure. As a

rule, the difficulty of reduction increases greatly after one-half of the tumor has disappeared.

He was, moreover, thoroughly convinced that the growth of malignant tumors may be stopped, and the tumors eradicated by electrolysis. He cited a case of *epithelioma of the face* in an old man, in which cure was effected by planting the needles below the base of the tumor. The needle connected with the positive pole of the battery is the one upon which oxidation occurs, and was the one which was introduced into the tumor and allowed to remain, while the needle connected with the negative pole was moved about on the surface; after working it a few minutes, the tumor fell off. Sloughing occurred, of course, and this is desirable if not too profuse. Cicatrization follows the sloughing, and a cure is effected.

In a recent case of *scirrhus of the breast*, the tumor was removed with the knife, after which, with a 32 cell battery, the base was worked up with electrolysis—the operator going below where the gland had been removed. At the end of the operation, the wound looked as though it had been cauterized; *but this is not galvano-cauterization*. He favored using the needle at the base of the tumor, rather than plunging the needle into it. The effect sought for was a chemical change of the tissues by means of electricity. He suggested that the true plan was not to attack cancer itself, but the tissues which surround it.

He had also used electricity in diseases of the skin. In a case of *chronic eczema* of the lower limbs, now under his care, he placed the negative pole over the stomach, and, commencing at the head, passed the positive current downwards along the course of the sterno-cleido-mastoid and other muscles—thus making applications only through the nerve centres; the electric current did not touch the affected parts. This caused a cessation of the itching and burning sensations; when the Doctor left New York for this meeting, the patient was comfortable, though a relapse may take place—the disease being permanently cured only by repeated applications.

Herpes frontalis seu ophthalmicus is a disease but recently fully identified, it being generally mistaken for erysipelas. This affection he treats locally, without regard to the direction of the current, by placing one pole of the galvanic battery upon the back of the head, while the other pole is passed over the affected parts. The disease itself is very painful, and relief is not immediate—the effects of the electric currents not being generally felt until about three hours after its application.

A short time ago Dr. Bulkley brought him a case with the following history: Woman, æt. 36, nervous temperament, sub-

ject to extreme torpor of the bowels, but not to neuralgia. Five days previous to seeing Dr. Bulkley, she noticed small papules in groups over the right eye, which soon developed into vesicles, still in groups, but which vesicles soon ran together, forming large patches. Some developed on the right cheek, and some on the scalp, running back nearly to the occiput. Three days afterwards, pain began in the affected parts, which steadily increased, radiating from the region of the ear, and being principally confined to the region over the eye—the eruption being limited to the right side of the face. On the next day, the right eye commenced to swell, and when Dr. Bulkley saw her (next day) for the first time, her sufferings were intense. The right half of the forehead and temple were covered with vesicles—some running together and forming large bullæ; there was also a small group just above the lip on the right side. Pulse 108; temperature 100°F. Dr. Beard, on being called in, applied electricity, and after the expiration of three hours, relief was experienced. The only other agent used was the ointment of camphor-chloral. (See page 231.)

The conclusions drawn by Dr. Beard are (1) that certain benign tumors, as goitres, enlarged glands, cystics and nævi, can be made to diminish or disappear under electrolysis; (2) fatty tumors and enlarged lymphatic glands are usually very difficult to diminish by electrolysis, and sometimes they will not diminish at all; (3) malignant tumors will not usually diminish, and rarely, if ever, disappear under electrolysis, but the pains connected with them can be treated most successfully, not only by electrolysis, but also by simple external electrization; (4) malignant tumors, when sufficiently accessible, and not too far advanced, may be treated by the method of electrolyzing the base, or “working up the base,” and this method promises more permanent results than have been obtained by the usual treatment; (5) certain diseases of the skin—herpes, eczema and prurigo—may be treated by different methods of using electricity with the highest success; (6) that diseases of the skin may be treated by local and central methods of using electricity, but some of the most brilliant results in the treatment of chronic eczema have been obtained by galvanizing the nerve centres, in the method of central galvanization, without making any application whatever to the diseased parts. The results of this method of treatment seem to show pretty conclusively that chronic eczema, to a considerable extent, is dependent on the central nervous system.

The remarks of the Doctor, as taken by a stenographic reporter, were referred to the Committee on Publication.

Dr. Hughes (Iowa) offered the following, which was adopted, in order that the Section might stand properly before the profession :

Whereas, The members of the surgical section of the American Medical Association have listened with interest to the report of Prof. Sayre, of New York, on the subject of fractures, and

Whereas, Statistics accompanying said report evince in the institution represented unusual results ; therefore

Resolved, That this section, after free discussion of the report and its reference to the Publishing Committee, would express their opinion, based upon experience, that the result in relation to shortening following fractures is better than can be looked for in general practice.

Dr. Pierce (Ill.) offered a resolution requesting Dr. Sayre to cause measurement of the cases referred to by him one year after treatment, and report the same to the Association at its next meeting. Adopted.

On the question of shortening in fracture of the long bones, Dr. D. O. Farrand (Chicago) exhibited two lads who had had fracture of the thigh joint several years ago. They were examined by those present, who could tell only by guessing which of the legs was broken, although a critical examination was made.

After other unimportant transactions, the section adjourned *sine die*.

SECTION IV.—Medical Jurisprudence, Chemistry and Psychology.—Dr. Talley (Columbus, S. C.), chairman, convened for first time Thursday, June 4th. Dr. E. Lloyd Howard read a paper on

Legal Relations of Emotional Insanity.—Abundant evidence of the existence of this kind of insanity was produced, and definitions of authors given. Still there are no test symptoms to suit all cases. When called to testify in courts we should be careful “lest, on the one side, there be a kind of inhumanity toward the defects of human nature, or, on the other, too great an indulgence given to crime.” Dr. H. thinks the latter just now our most imminent danger. He hazards the opinion that the ends of justice would be better subserved, the security of society more certain, and the rights of individuals more secure if the laws exempting insane offenders from punishment were repealed, leaving the jury to determine the guilt or innocence of

the prisoner, not on the grounds of insanity alone, but from all the facts; considering, in each case where insanity is alleged, its value, if proven, as an element in forming an opinion as to punishment.

Regarding the question of punishment of insane criminals, he favors the view of applying to many cases of "moral" and "impulsive" insanity the same restraining influences found efficacious in sane criminally-disposed persons. As an epidemic mania for suicide in young women was checked by a law ordering the bodies of those so destroying themselves to be exposed, naked, to the public view, so he believes the murder manias might be greatly controlled by judicious laws. An extremely good example of the deterrent influence of a judiciously devised punishment was afforded by the stop which was put to the repeated alarms to which the Queen was subjected, after the real attempt made upon her life by Oxford. The motive in his case seemed to be nothing else but morbid vanity, which was gratified by his being tried for high treason, and made an object of public notoriety. Being found "not guilty" on the ground of insanity (to which it was proved he had an hereditary predisposition), and being placed in Bethlehem Hospital as a lunatic, no corrective impression as to punishment was made upon the class from which he sprung; and the like morbid love of notoriety led one young fellow after another to threaten the life of the Queen by presenting pistols or other weapons when she appeared in public. In order to protect her from the repetition of this outrage, a bill was carried through the Legislature, in the shortest possible time, making the offence of presenting any fire-arms at the Queen (even if unloaded) a disgraceful one, to be punished with whipping; and no more was heard of such attempts.

We find, then, that there are certain cases in which the fear of punishment acts upon the minds of those unquestionably insane, with a wholesome and restraining influence; and it seems right and proper that the community should receive the protection which can be given it by the enforcement of the laws in this regard. If it be made certain that punishment will always follow swiftly upon the steps of those who do injury to the persons or property of others, many having this insane temperament will be controlled, and have their powers of resistance to insane promptings strengthened, who might, with a less certain prospect of punishment before them, give way to their evil impulses.

This paper, as also one by Dr. Talley, on *The Relations of Psychology to Medicine*, were referred to the Publishing Committee.

Adjourned *sine die*.

SECTION V—FIRST DAY.—*State Medicine and Public Hygiene*—Dr. A. N. Bell (New York) chairman.

The report of Dr. Bowditch (Mass.) was read. It recommended the establishment of

State Boards of Health.—The Massachusetts Board was organized June 21st, 1869, though the idea was suggested 20 years before. It consisted of 7 members, with 7 years term of office, one retiring each year, appointed by the Governor and Council. Its members were 4 physicians and 3 laymen. The same proportion has since been maintained. Dr. B. showed that the addition of the laity had been in a high degree beneficial to the success of the Board, making it popular. Its reports had come to be regarded with great favor and sought after by the people at large. The Legislature, unsought, had extended the powers of the Board, and given them authority to prevent the continuance of unhealthy trades and occupations, and the removal of nuisances, which local boards of health are unable to compass. The courts had sustained the actions of the Board; and, although the past year it had been brought in conflict with rich firms, who proposed to test the constitutionality of the law, there was no fear of demagogues attempting to repeal it. One of the greatest triumphs of the board was the erection of the Brighton *abattoir*, in place of the many stinking slaughter-houses, which is kept clean by the rules of the Board. Dr. B. was not in favor of the establishment of a National Sanitary Bureau at present, but recommended members to urge the organization of State and local boards of health.

After some discussion on the resolutions referred to the section for consideration and action this year—the first in favor of the establishment of a National Sanitary Bureau, similar to those of Agriculture and Education, and the second requesting the Educational Bureau to extend its scope of inquiry so as to include vital, disease, and mortuary statistics, in relation to local and other influences, and to disseminate the information thus obtained—Dr. Kedzie (Mich.) offered the following:

Resolved, That it is expedient at this time to petition Congress for the establishment of a National Sanitary Bureau.

The report of Dr. A. B. Stuart (Minnesota), which was read by Dr. Bell, advocated such a board.

Dr. Bell thought the measure impracticable until State Boards were general. He supplemented his paper by remarking that since the last meeting of the Society, Maryland had gained a

State Board of Health—making the sixth—and that New Jersey had formed a commission of inquiry looking toward the same end.

Dr. Brown (Waco, Texas) said that steps had been taken in his State to form a State Board. A portion of the idea presented was the establishment of county boards of health. He favored the resolution.

Dr. Jerome Cochrane (Mobile, Ala.) believed he delivered the first course of lectures upon public hygiene in any college in America. He thought the proposed establishment of the National Bureau premature. He was not entirely satisfied but that some of the State Boards were crudely formed. Under the systems in vogue, where the members were appointed by Governors of States, men were liable to be chosen for political services, not for technical knowledge. He also thought that the boards were composed of too small a number. The plan he introduced at the last meeting of the Alabama Legislature was approved by the State Medical Association, but the matter was delayed by reason of the political troubles existing in the State. The plan, in brief, was to have the work of the State Board of Health done through the State Medical Association, which gave its services gratuitously, the only State aid being in the printing of the public documents. Another section of the proposed bill was to have each county medical society charged with the local duties of boards of health, thus inducing nearly every medical man in the State to become a laborer in the public service. If there had been such an organization last year he believes the yellow fever could have been kept away from the city of Montgomery.

After further discussion, the resolution was adopted by a majority vote.

The following resolution, offered by Dr. H. A. Johnson, was adopted, to be reported in connection with the one above :

That, with a view to the establishment of a National Sanitary Bureau, it is expedient, at the present time, to press, through State societies and physicians in all the States, upon the Legislatures of our several States the importance of establishing State boards of health.

Adjourned.

Second Day.—Dr. R. C. Kedzie (Michigan) read a paper on

The Influence of Drainage on the Public Health.—His State had an unenviable reputation for swamps. The United States gave about 6,000,000 acres to the State, the proceeds of

their sale to be devoted to drainage and reclamation. Much of the land has been given to railroads under the fiction that their side ditches would drain the land. Seventy-five per cent. of the amount realized from sales have gone to public schools, and only the interest on the balance has been applied to reclamation. The proportion of swamp lands in the State is about one acre in nine. The estimated amount of ditches dug during the past year is more than 2,300 miles. Probably 20,000 miles have been dug within ten years. From the 947 townships in the State, 244 replies had been received to circulars sent out, and from them and other facts at hand, he had made the estimates above given.

The general character of the replies was to the effect that drainage has had a very decided effect in diminishing or modifying malarial disease. Some say, however, that the *immediate* effect of drainage of swamp lands is to increase the amount and severity of malarial disease, owing to the disturbance of decaying matter, but that the permanent effect is excellent. The percentage of malarial disease was from 10 to 75 per cent., being largest where there is the greatest proportion of adjacent swamp lands. Some doctors reported an increase of other than malarial disease, but Dr. Kedzie explained that this was probably an increase of the *proportion* of such diseases to the total, and not an absolute increase of disease. Some reported that malarial diseases had been reduced to one-half or one-fourth the amount ten years ago. Dr. Reeves, of East Tawas, also reported at length in regard to the climatic effect of the fires in the State in 1871, and earlier fires.

The fall of 1866 was very dry. The marshes became so dry that the autumnal fires, which often prevail, spread to the marshes, and hundreds of thousands of acres of peaty matter were burned up. The air became filled with a white smoke having the same appearance and creosotic smell as the smoke from a charcoal pit. So dense was this smoke in the central parts of the State that for a week business was almost suspended. Farmers were lost in their own fields, and in traveling on the roads it was almost as difficult to avoid collisions as on a dark night. Many persons and cattle were destroyed by inflammation of the lungs; fish were killed in most of the streams. The trees in these marshes were burned out by the roots, but without consuming their trunks or branches. The marshes thus became filled with a vast amount of fallen timber.

Dr. Bell stated that a paper had been prepared by Dr. J. L. Cabell, of Virginia, giving the statistics of *Drainage in Vir-*

ginia, collected in the same manner as adopted by Dr. Kedzie, and showing, if possible, a still worse state of affairs than in Michigan—demonstrating that defective drainage is the cause of more than half, if not more than three-quarters, of the mortality in many localities. Limited time prevented the reading of more than extracts from the report, which Dr. Bell characterized as being in all respects a most valuable one.

Dr. Bell read a report upon *Drainage in New York*. In 1830 a medico-topographic State survey was made, which did great good. But even before that year, defective drainage was recognized as a chief cause of excessive mortality. He showed that the sewerage of New York was inefficient to carry off all the water; and conforming as it did to the rectangular plan of the city, the sewerage was incompatible with thorough drainage, and a cause of epidemics. In a communication by General Viele, severely criticising the arrangements of drainage in New York city, he said, sewerage is not drainage, and fails to carry off a large amount of water, which is a fruitful source of pestilence. Within the last two years, however, a law had been enacted and measures taken to secure deep drainage in that city. The report was not read entire, but will be published in the transactions.

The chirman read the report of Dr. Robert D. Murray, Surgeon U. S. M. H. service on —

Climatic Influences of Key West.—This island is in latitude $24^{\circ}32'$ N., and longitude $81^{\circ}48'$ W. Rock crops out in all the cleared places; what soil there is consists of humus, powdered oolite, coral and shell, in no place exceeding 4 inches in thickness. There are 1,976 acres, one-third of which are taken up by the city and U. S. reservations, the remainder being wild "bush," salt ponds, and low flats. The extreme altitude is 12 feet, from which there is an almost uniform slope to the sea, excepting localities making a total area of about 20 acres, which are filled with water most of the time and constitute the "lagoons."

Mean temperature 76.50° . Summer range 14° ; winter range 20° . Average rainfall 39.22 inches. Usually from two to five months of the winter and spring there is no rain excepting a chance shower. The balance of the year showers are frequent for long periods daily, but long drizzling rains are almost unknown. However hard the rain may fall, in an hour or two

afterwards the ground will be dry, except the ruts and depressions in the streets, but in twenty-four hours at most these will be dry. Average hygrometer 73.78°. The humidity is particularly noticeable on the approach of a cold wind or during a calm. Not more than five to ten days of calm occur during the year. The prevailing winds are from E. to N. E., the *hardest* from N. W. and S. W. These latter carry clouds of dust about the town, which being almost wholly of "grit" is productive of bronchial irritation, coryza, asthma, etc.

The population is 7,500—whites, 3,850; Cubans, 2,150; colored, 1,500. About 2,000 of the whites are *natives* or recent emigrants from the Bahama Islands. The remainder of the whites come from all parts of the world.

There are no diseases peculiar to the place. Epilepsy is perhaps fully up to its highest proportion. Trismus nascentium is very common among the low class of negroes and Cubans. The Cubans being more or less depraved refugees from their homes in unsettled mental and social conditions, are much affected with consumption. All of them smoke to excess, and perhaps are of phthisical diatheses in their own country. The chill north winds may have a harsh effect upon them. At any rate 90 per cent. of the deaths from consumption are in the Cuban population.

The old residents and their descendants and the emigrants from the Bahama Island are scarcely at all affected with consumption. The proportion of *old* people among them is surprising. For two years I have not seen or heard of a single case of consumption among the acclimated whites, proper. I know of a couple cases of death from acute pneumonia in the second and third month. In each case squalid poverty was the chief cause of death.

The verdict of all is "there is no consumption in Key West except among the Cubans." The majority of the people I refer to lead hard working and exposed lives. The families are poorly fed and oftentimes scarcely dressed at all except on gala days; but notwithstanding these conditions consumption is exceedingly rare. I venture to say that there is not a case of it in a native white person in the town at the present time.

The effect of our winters upon chronic pneumonia, chronic bronchitis, asthma, rheumatism and neuralgia is beneficial. The summers are relaxing to a great degree, but all persons who can maintain appetites do well the year round. Many live here, myself among the number, on account of freedom from bronchial difficulties experienced on the main land.

Complete statistics cannot be given yet, owing to the care-

lessness of the health officers; nor am I able to give satisfactory reasons for the exemption of the natives of the island from pulmonary consumption.

There is no *defective drainage*. The houses are all built with floors from two to six feet above the rock. The great humidity makes some discomfort for consumptives, but does not appear to have any influence in producing pulmonary lesions. The extreme heat is productive of trouble in children under two years of age, and engenders fevers in acclimated adults. Scarlatina and measles, I am told, have never been known here. Further inquiries must be made ere I give credence to the assertion. It is very probable that yellow fever is produced by careless sanitation. Of methods of keeping the city clean the authorities have not the faintest idea.

Dr. Pratt, Michigan, stated that the *three years' drought* in his vicinity had resulted in a large proportionate increase in the organic matter in well-water. This had been followed by a large increase of malarial disease among families using well-water, whereas families using the water works water had not been troubled. He therefore attributed a considerable percentage of disease to the percolation into wells of surface water, and the natural accumulations of a large town.

Dr. H. A. Johnson, Chicago, recited the physical and topographical features of that city which rested, he said, upon a bed of alluvial clay descending toward the lake, and covered with sand of gradually diminishing depths from the lake westward. Twenty-five years ago the diseases were distinctively malarial. Then all the surroundings were swampy; the watershed was so low that boatmen passed from the head of the Chicago River to the head of the Des Plaines with a portage of but 25 miles. Now a good system of sewerage exists with such remarkable hygienic effects that a case of fever and ague is very rare. Probably no city of like population covers so large a territory; and as refreshing breezes constantly blow either from the lake or the prairies, and an abundance of excellent fresh water is obtained by a tunnel in the lake, the health of the place is excellent; some of the more distinctively malarial diseases have disappeared entirely, a fact greatly due to the drainage of the surrounding country. Cerebro-spinal meningitis and congestive chills are rare. Deaths by consumption are about in the same proportion to the whole number of deaths. He also gave facts to show that the death rate was two or three times greater in wards where the sewerage was not adequate than where it was complete.

Third Day.—In accordance with resolutions, Drs. Kedzie, Mich., Stuart, Minn., and O'Sullivan, N. Y., were appointed to report at next session on house ventilation.

Drs. Bakers, Mich., Johnson, Ill., and Toner, D. C., were appointed to draft a bill for the establishment of a National Board of Health, and to confer with Congress regarding it.

Drs. Pratt, Mich., Armor, N. Y., and D. W. Yandell, Ky., were appointed to report at next session how to enforce by law an examination by State Board of Examiners of all who begin the practice of medicine.

Dr. Bell presented the following, offered by Dr. Fred. Horner, Jr., Va., two years ago, and referred to this section:

Resolved, That in view of the alarming prevalence and ill effects of intemperance * * * which has called forth from English physicians the voice of warning * * * concerning the use of alcoholic beverages, * * * we believe that alcohol should be classed with other powerful drugs; that when prescribed medicinally it should be done with conscientious caution and a sense of great responsibility.

Resolved, That we are of the opinion that the use of alcoholic liquors as a beverage is productive of a large amount of physical and mental disease, that it entails diseased appetites and enfeebled constitutions upon offspring, and that it is the cause of a large percentage of the crime and pauperism in our large cities and country.

Resolved, That we would welcome any change in public sentiment that would confine the use of intoxicating liquors to the uses of science, art and medicine.

Dr. Morris said this section speaks for the whole profession. He thought the audience too small and the time too short to present the subject properly, and should be made a special order for the next meeting. He alluded to the manner in which the subject had been sprung upon the profession in Great Britain—that 260 of the best English physicians had been innocently and unsuspectingly made to sign an expression of views similar to these resolutions. He was satisfied that as a dietetic, alcohol was beneficial if not desirable, that the consumption by an adult daily of $1\frac{1}{2}$ pint of ale containing 5 per cent. of alcohol, or a pint of claret containing 10 per cent., was strengthening to the system, conservating and building it up. Every drop beyond this was destructive of the life forces, and if taken in excess continuously it would most certainly lead to degradation and to death. He thought it unwise to take extreme grounds.

Dr. J. Cochrane, Ala., said that recent experiments in Berlin

show that alcohol is digestible, and in certain cases a genuine food. It has two distinct actions, the stimulant and the narcotic; the first beneficial, the second deleterious. Until the whole ground has been thoroughly explored, it will not be safe for us to lay down any definite rule in medical practice. He thought best therefore, to defer final action.

The resolutions were adopted by a majority vote—but there were only 16 members of the section present.

Adjourned *sine die*.

Editorial.

MEDICAL DEPARTMENT OF THE UNIVERSITY OF VIRGINIA.

In a previous number, we have called attention to the claims of the Medical College of Virginia, in this city. We now take occasion to refer to another Virginia school of medicine—the medical department of our State University, at Charlottesville.

It is well known that this department is organized on the same general plan as the other departments of the University, and that the length of its session (nine months) renders it practicable to bring the different subjects to the attention of the students in their natural and successive order. From our own personal experience and observation, we can bear emphatic testimony to the excellence of this system, the practical value of which is annually attested by the success of the graduates of this school at competitive examinations for entering the medical staff of the navy and army, or that of certain hospitals in which the appointment is made by *concours*.

The rigid examinations for graduation, eight in number, terminated for the present session on the 25th June, when the following named young gentlemen were found to be entitled to the degree of Doctor of Medicine:

James McA. Bilisolly, Portsmouth, Va.; James Bosley, Whitehall, Md.; James Sylvester Buchanan, Augusta county, Va.; Richard Henry Darrow, Charlottesville, Va.; Thomas White Edmonds, Halifax county, Va.; Charles Thomas Hibbett, Castalian Springs, Tenn.; John Edward Janney, Winchester, Va.; Thomas Arthur Jones, Orangeburg, S. C.; Henry Grattan Miller, Charlottesville, Va.; Peter William Miller, Winchester, Va.; Thomas Phillips, Loudoun county, Va.; Charles Pratt, Staunton, Va.; Frank Heath Terrill, Roanoke county, Va.;

Richard A. Urquhart, Isle of Wight county, Va.; Benjamin Whiteley, Jr., Baltimore, Md.; William A. Wilson, Pulaski county, Va.

THE CHURCH INSTITUTE.

This Institute was formally opened under its present administration June 9th, 1874, on which occasion there was a large attendance of its friends—among whom were about forty physicians, besides ministers and laity. The subjoined resolutions were unanimously adopted, and we call attention to them as answering some of the questions which have been asked regarding the institution. We will only add that it also supplies a great and daily increasing want of Richmond—affording every advantage of the best of private hospitals for ladies and gentlemen who may be taken sick while visiting the city, as also for those who may come to consult or be treated by any regular physician.

Rev. Dr. Peterkin was called to the chair, and Rev. Dr. Bettelheim requested to act as secretary.

Dr. F. B. Watkins offered the following resolutions, which were unanimously adopted:

Whereas, It has been a long felt necessity among the congregations of all denominations, the charitable institutions of this city and the medical profession at large, to have an institute for the sick which shall substitute the family in regard to the care, nurses, medical attendance, etc.;

Resolved, That we, ministers of different denominations and physicians residing in this city, recommend the Church Institute, just now inaugurated under the auspices of Dr. Jas. D. Moncure, as in every way worthy of the patronage and confidence of the community.

Resolved, That Dr. Moncure has, besides the efficient co-operation of his able corps of advisors and consulting surgeons and physicians, the services of skilled and accomplished nurses, whose whole time and duty will be devoted to the watchful care of the patients. We bear our cheerful testimony to the extreme cleanliness, perfect ventillation and admirable arrangement—so indispensable in well constructed hospitals; and are sure that both in the private and public wards patients will enjoy every comfort which they could find in their own homes; that any physician who places his patient in a private ward shall have as absolute control of his patient as if visited in his or her own house, besides the nursing and dietary of the hospital.

Under the strongest convictions of the real value which the "Church Institute" offers to the sick, we suggest to all congregations, charitable and beneficiary associations, that they will find it not only humane, but profitable and economical to look to this hospital as the proper and best home for their "sick and suffering poor."

Resolved, That the daily newspapers of this city, the religious papers of the State, and the *Virginia Medical Monthly* be requested to publish the foregoing preamble and resolutions.

The Richmond and Louisville Medical Journal, June, 1874, page 784, says: "The New York Medical Journal seems to have determined never to give this Journal credit for any of the articles or items of news extracted from it. One cannot call that Journal, under such circumstances a very *creditable periodical*."

It could hardly be believed, if we did not have the fact before our eyes, in the very Journal containing this paragraph, that an editor who could thus speak of a respectable Journal would himself take *verbatim* from the *Medical Monthly* whole original articles, and various synopses made by its editor, not without labor, without giving proper credit for anything thus copied. The June number of the *R. and L. Med. Jour.* contains the article by Prof. McGuire on *Drainage in Chronic Cystitis*, written expressly for, and published in the April number of the *Monthly*; but it is credited to "*Trans. Va. Med. Soc.*," in which no part of the article ever appeared. Prof. Cabell's paper on *Oxygen, &c.*, is also copied entire, but is credited to "*Exchange*." Of the synoptical articles that have been thus copied, also from the April number, are *Gelseminum*, *Protection of Hypodermic Solutions from Change by Keeping, &c.*

We appreciate the compliment of having enriched 12 or 14 pages of the above Journal, with so large a portion of its *valuable* matter. But is it generous for "the largest medical monthly in America" to draw so largely on the pages of a new journal, seeking much of its support from the same field, without giving proper credit for what is deemed of sufficient value to be copied at length? But we will not say that "one cannot call *that* Journal, *under such circumstances* A VERY CREDITABLE PERIODICAL.

Much matter is crowded out of this issue.

Virginia Mortuary Statistics for May, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Health Officers.....		Dr. J. A. Cabell.				Dr. J. B. Whitehead.				Dr. E. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		17	30	31	30	6	6	10	9	7	9	7	6
Number still born.....		5		9		1		2		1		4	
AGES. Ages unknown not calculated.	Under 1 year.....	13		16		Color not given, 7				Color not given, 7			
	“ 3 years.....	2		7		“ “ “ “ 3				“ “ “ “ 3			
	“ 10 “.....	1		3		“ “ “ “ 1				“ “ “ “ 2			
	“ 20 “.....	5		3		“ “ “ “ 1				“ “ “ “ 1			
	“ 30 “.....	3		9		“ “ “ “ 5				“ “ “ “ 4			
	“ 50 “.....	8		12		“ “ “ “ 5				“ “ “ “ 7			
	“ 70 “.....	12		6		“ “ “ “ 7				“ “ “ “ 2			
	“ 80 “.....	2		5		“ “ “ “ 1				“ “ “ “ 1			
“ 100 “.....					“ “ “ “ 1				“ “ “ “ 1				
Over 100 “.....					“ “ “ “ 0				“ “ “ “ 0				
Most frequent Causes of Death.	Accidents, &c.....	3		3									
	Apoplexy.....	1		1		1							
	Asthma.....	1						1					
	Birth, Premature.....	3						1					
	Brain, Conges. & Inflamm.....			3						2			
	Bronchitis.....							3					
	Cholera Infantum.....	2											
	Consumption.....	11		10		3		2		3		3	
	Convulsions.....	1		3				1		1		2	
	Diphtheria.....	1				1							
	Erysipelas.....	1										1	
	Fever, Continued & Typhoid.....	1		2									
	“ Puerperal.....			1				1					
	“ Remittent.....							1				1	
	Gastritis.....	1								2			
	Heart Diseases.....	4		2		2							
	Ileus, Intussusception, &c.....							2					
	Inanition, Old Age, &c.....	2		4		1		2					
	Infanticide.....			3									
	Legs, Mortification of.....							1					
	Lung, Congestion.....									1		1	
	Measles.....									1			
	Meningitis, Cerebro-Spinal.....			1									
Nephritis.....							1						
Paralysis, General.....	1		1		1								
Pneumonia.....	2		4		2		3				1		
Small Pox.....			1										
Syphilis.....			1						1				
Trismus Neonatorum.....			1										
Whooping Cough.....	2		6				1						
Census taken in February, 1874.						Population is estimated.				Population is estimated.			

The case of small pox in Richmond was imported. There is no other in the city.
The sanitary condition of each city is good.

VIRGINIA MEDICAL MONTHLY.

VOL. I.

RICHMOND, AUGUST, 1874.

No. 5.

Original Communications.

ART. I.—*Experiments with Oxygen Gas.* By WILLIAM B. GRAY, M.D., Richmond, Va.

Mrs. W., aged 46 years, for four years a sufferer from gout, rheumatism, and dyspepsia, was rapidly emaciating during the latter part of February, 1874. A careful examination of the mesentery disclosed the existence of two large indurated tumors, with general hardness of the left half of that viscus. She suffered, paroxysmally, with excruciating pain in this region, and the parts were very painful upon pressure. Constipation alternated with diarrhœa—stools chalky. In a few weeks, under the free use of iodine locally, and tonics and stimulants internally as the stomach would tolerate them, the disease appeared almost entirely to resolve. But she was weak and unable to take medicine with sufficient regularity to ground a hope for response until a better assimilation could effect more permanent results.

Under these circumstances, I determined to try the effect of oxygen gas, and, accordingly, on the 23d of April, ordered a 70-gallon cylinder of the remedy, from W. E. Gladstone, N. Y., which was received not until the 30th.

The tabulated statement of pulse, respiration and temperature (which is appended) for the three days antecedent, and three subsequent to the day upon which the gas was administered, is compiled from memoranda made at each of the several times mentioned:

Date.	Time.	Pulse.	Resp.	Temp	Gas taken.	REMARKS.
1874.						
April 28th,	5½ P. M.	120	19	F. 97°		{ Temperature taken in interclavicular space. Bowels have been quiet for a week.
" 29th,	4½ "	112	18	" 93°		
" 30th,	11½ A. M.	110	17	" 94°		
May 1st,	"	100	16	" 94°	4 gallons...	Pulse feebler—intermittent.
" "	12 M.	"	12	" 96°		" stronger—regular—sleeps.
" "	5 P. M.	112	16	" 95°	4 gallons...	Drops mouth-piece—mouth open.
" "	6 "	"	12	" 96°		Rapid diarrhœa.
" 2d,	12 M.	120	18	" 95°		Refuses gas—Dr. Herndon present.
" 3d,	"	112	11	" 93°		Diarrhœa continues.
" 4th,	11 A. M.	"	16	" 94°		Diarrhœa arrested.

My friend, Z. B. Herndon, M.D., was present at the second administration of the gas, and as I was compelled to leave the city on the following morning, he kindly took charge of the case, and furnished me with the remaining notes. Diarrhœa returned on May 5th, and continued unabated till death closed the scene on the afternoon of the 7th.

The cylinder containing the gas was now removed to the office of Jud. B. Wood, D.D.S., to whom and to T. A. Jeter, D.D.S., I am under obligations for kindly procuring and allowing me the use of the necessary bag and mouth-piece, belonging to the latter gentleman.

Experiment 1st.—On the 5th of May, for the sake of experiment, Dr. Herndon took two gallons of the gas from the same cylinder. I copy his statement, furnished in writing at my request: "The first sensation was that of a painless separation of the cranial sutures. About this time I was told to release my hold on the tube. I hardly know whether I had sufficient volition to do so or not; but know that my hand was removed by Dr. Wood, who said that my voice was unnatural, and that I was livid. In a moment or two I felt exhilarated, so much so that I imagined I could handle a half dozen men like so many marbles. In 15 or 20 minutes I rode up the street on horse-back, and felt an ease in breathing which reminded me of the pleasure I used to have in breathing the pure air of the Florida pines."

Experiment 2d.—Dr. Wood now inhaled 2½ gallons of the same gas, from the same cylinder and bag. From his written statement I extract the following: "I was perfectly conscious—sensible of cardiac irregularity and excitement—believe a tooth might have been extracted without pain—lips and forehead decidedly purple—noted a difference in the effect of oxygen and

nitrous oxide, particularly in the fact of greater cardiac excitement from the former." (Dr. W. is a skillful and experienced dentist, and is entirely familiar with the effect of the latter gas, having frequently taken it himself, and witnessed its effects upon many of his patients.)

Experiment 3d.—Dr. Wood's assistant, Lewis M. Cowardin, D. D. S., took one gallon and a half of the same supply of gas. From his written statement I submit the following: "The effect was delightful—was perfectly comfortable—indifferent to everything—felt very strong—wanted more gas—face livid."

Experiment 4th.—Mr. P. A. Jeter, student in Dr. Wood's office, took $2\frac{1}{2}$ gallons. He represents (in writing) that he "was greatly exhilarated—unconscious—did not know when mouth-piece was removed—insensible to everything for $\frac{1}{4}$ or $\frac{1}{2}$ minute—lips slightly purple on return of consciousness."

Experiment 5th.—A colored boy, aged 17 years, wished the first right superior molar tooth extracted. The crown of the tooth was a mere shell, and the gum red and sensitive. The gas was drawn off from the cylinder into Dr. Wood's gasometer, which had been previously emptied of the nitrous oxide, and 3 gallons of it were inhaled by the patient. I was present, and noted his pulse, respiration and temperature as follows:

Pulse 80; respiration 24; temperature 98°F . (taken in interclavicular space at root of neck). In one minute and a half pulse rose to 104, very feeble, intermitting. Patient profoundly unconscious. Dr. Wood extracted one root of the tooth. No complaint whatever was made, nor was there the slightest evidence or symptom of pain. The remaining two roots were now quickly taken out, with a scarcely audible groan on the part of the patient. In $2\frac{1}{2}$ minutes he was fully reinstated, and said he did not know when the tooth was taken out; that his first sensation "was pleasant—the last like that other gas," alluding to nitrous oxide, which he had taken on a former occasion. He remained seated in the dental chair, and in 10 minutes, assisted by Dr. Herndon, I noted: pulse 80, regular; respiration 16; temperature (interclavicular space) 101°F .

Experiment 6th.—Dr. Wood administered to Mrs. A. B. two gallons of the same gas, and while under its influence extracted

eight anterior inferior teeth. The lady declared she "suffered no pain whatever."

ART. II.—*Stricture of the Urethra.* By J. C. LE HARDY, M.D., Savannah, Ga. (Read before the Georgia Medical Society, May 27th, 1874.)

I beg leave to call the attention of the members to the subject of *Strictures of the Urethra*—not to discuss it in all its bearings, nor to review the literature on that important lesion, but simply to give in a few words the result of an experience of twenty years in such cases as occur in private practice in relation to the use of instruments, and to warn the profession against the too hasty resort to expansion by bougies, where palliative measures may be sufficient to effect a cure. Physicians are often inclined to use the bougie at once in the hope of giving immediate relief to their patients. They will thus occasionally induce a depositive inflammation in the lining membrane of the canal where only simple congestion existed.

In order to be more concise, I will divide strictures into three classes: 1. The *inflammatory* or *congestive*. 2. The *organic* or *permanent*; and 3. The *spasmodic* or *nervous*.

The *congestive* occurs most generally in the membranous or prostatic portion of the canal, and is the result of urethritis, drinking of spirits, excessive venery, and direct injury. In the treatment of cases belonging to this class, no one would use instruments, unless symptoms of retention be very urgent, and do not give way to other measures. They should then only be used for the simple object of emptying the bladder, for the pressure of a hand instrument against an inflamed surface must be followed by an increased congestion. The most successful treatment in my experience has been rest in the recumbent posture, hot baths, with cooling alkaline drinks and mild aperients. As this form of disease is generally the result of acute urethritis, soothing injections, by reducing the inflammation, will soon be followed by entire relief.

Organic strictures comprise those in which the calibre of the urethra is diminished by an inflammation of long standing, the

result of repeated gonorrhœas, or of some injury to the canal; or again, by the consolidation of plastic deposits in the mucous and sub-mucous tissues. They may occur in any portion of the urethra, from the sphincter of the bladder to the meatus; however, I have found the bulbous portion to be the most frequent seat of contraction. They are sometimes very irregular and tortuous. In such cases, the passage of a metallic bougie through them is often very difficult, if not impossible. When once established, these strictures gradually increase in size, and become more and more troublesome, unless removed by medical or surgical measures. They are followed by other organic changes in the canal itself, such as dilatation behind the strictured point, extravasation of urine, fistulæ, etc., and then by chronic inflammation of the bladder, extending at times to the kidneys with fatal consequences. To diagnosticate the true nature and condition of these strictures often requires a great deal of patience, care and skill. The instrument which has given me most satisfaction is the conical steel sound, coated with silver or nickel. Its high polish and conical shape gives it an advantage over other instruments, insomuch as it irritates the canal less, and passes through strictures more easily—an advantage of great importance, as the smaller the instrument the greater the danger of its finding a lodgment in the urethral fossæ, or striking against the veru montanum, and thus leading the explorer into error, and exposing the patient to injuries.

Having found by trial the size of the bougie to be used, the instrument being held lightly in one hand, its point is passed carefully into the meatus and fossa, and guided with the other hand along the canal to the stricture; then by supporting the parts, the instrument can be guided with accuracy, and the operator is able to judge of the length, thickness and hardness of the pathological deposit—that is, in all cases where the stricture is in advance of the pubic arch.

There are cases, however, where the strictured opening is so small or the tract so tortuous that metallic bougies cannot be passed through; then, if the urgency of the case demands it, resort must be had to elastic bougies or catheters, cat-gut, fiddle-strings, or other materials suggested by the surroundings, in order to effect a passage and relieve the patient's sufferings.

But when the symptoms are not urgent, the treatment I have followed with the best results is, after removing all existing inflammation by rest, etc, take a tolerably large sized bougie and gradually expand the first obstruction, then pass to the next one and do likewise. When the bladder is thus reached, all of the unpleasant symptoms are removed, and all that is left for the surgeon to do is the gradual expansion of the canal until its full size is restored, and then to continue the occasional use of the larger sized bougies until the tendency to contraction has entirely disappeared. This will require, according to the nature of the case, from two to twelve months. I have seen cases where it took two, three and five weeks to reach the bladder with the instrument. Yet, these would make a good recovery, and the cure would be accomplished in a comparatively short time, from the fact that no inflammation or irritation was produced by the instruments; and when the bladder was reached, but little more than a few applications were required to complete the treatment.

During the space of twenty years I have met but two cases where an entire retention was the result of stricture. One came on shortly after marriage from the congestion produced by too frequent coitus; this was relieved by hot bath and chloroform. The other, the result of chronic stricture, came on gradually, and the symptoms became so grave that, after failing to pass a catheter, tapping per rectum was resorted to. After tapping, a filiform bougie was easily introduced, and gradual dilation was followed by an entire cure. I have met with urethræ having several strictures, ranging from two to seven, extending from the meatus to the bulb.

One of the most painful strictures occasionally met with, is the congenital or acquired narrowing of the meatus of the urethra. When this does not yield readily to gradual expansion, rather than subject the patient to repeated torture, I always advise operation with the knife or by forced expansion, such as by Holt's dilator, keeping the orifice expanded whilst healing with metallic bougies.

Spasmodic strictures are produced by the contraction of some of the muscular fibres of the canal, and caused by a certain impression made on the nervous centre through imagination or

otherwise, and thence, through reflex action on the nerves, distributed to the muscles involved.

An acid condition of the urine after drinking spirits or other acid beverages, may be followed in the otherwise sound urethra by a great difficulty in voiding the bladder. At times this may even amount to a complete retention. In attempting to pass an instrument in such cases, the canal is found to be obstructed, and the bougie fails to pass through. However, if pressure is kept on the bougie for a time, all at once this obstruction gives way, and the bougie passes without further difficulty into the bladder. This only occurs in spasmodic strictures, and is a distinguishing feature of that pathological condition. Considering the cause and nature of this class of strictures, unless in case of entire retention where danger may be apprehended or great suffering may be relieved, the use of instruments as a mode of treatment is not indicated; on the contrary much injury may result from such a measure by the increased irritation caused by pressure.

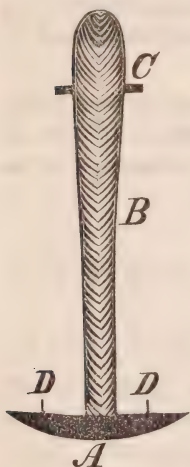
Hot baths, soothing injections, the use of opium and belladonna per rectum, or otherwise, cooling medicines—in fact, all that will tend to reduce the existing nervous irritation—is the most rational treatment and the one indicated.

ART. III.—*A Flexible Intra-Uterine Stem.* By G. T. SCARBURGH, M.D., Norfolk, Va.

During the early spring of 1873 I was consulted by Mrs. H., who, for nearly a year past, had suffered from severe dysmenorrhœa. A careful examination revealed acute retroflexion of the womb, with considerable congestion of that organ. Treating the congestion with carbolized glycerine, in the proportion of thirty grains of the acid to the ounce of glycerine, applied by means of a cotton-wool pessary, and enjoining strict rest, I soon had the satisfaction of finding the womb reduced to nearly its normal size. A Hodge's closed lever pessary was adjusted, but was unproductive of good results. A hard rubber intra-uterine stem was then introduced, but the pain caused by it was so violent that I was compelled to withdraw it. As the stem entered the cervical canal with great ease, giving in its introduc-

tion no pain whatever, and there was evidently no active inflammation, I could attribute this intolerance only to its rigidity.

Acting upon this idea, it occurred to me that a flexible stem, splinting the womb, yet yielding to a certain extent, would meet the indication. With a wooden button as a base, and a piece of a No. 9 elastic bougie as the stem, carrying near its extremity a narrow piece of rubber cord as its support in utero, I soon had my instrument ready for use. But as the heat of the tissues quickly broke down the gum bougie of which the stem was made, the womb gradually resumed its flexed condition. Intent upon devising a stem to meet my idea, I hit upon the expedient of introducing within the stem a very narrow piece of extremely flexible steel to serve as a spring. This was done. The stem was introduced and worn with great comfort until the successful termination of the case.



The annexed cut will give some idea of the instrument. A, base or vaginal portion, seven-eighths of an inch in diameter, perforated at D, D, to permit the escape of the secretions. B, flexible stem, two inches in length, containing within it a flexible slip of steel running centrally from the base A to a point just beyond C. C, rubber used to assist in maintaining the stem in situ.

I have used this flexible stem in several cases of flexion, and with the happiest results. My experience is, that it causes far less irritation and gives greater comfort, especially in very acute flexions, than the rigid hard rubber stem.

In order that it may be more readily retained, I have been induced to modify the stem, making it slightly bulbed at its extremity, as shown in the cut.

Dr. Chas. T. Hunter says there was no apparent difference in the results of Watson and Lister in Glasgow Infirmary. The one used *no* antiseptics—the other used them in every operation.—*Phil. Med. Times.*

Clinical Reports.

A Case of Retroflexion, with Occlusion of the Os Uteri. By H. OTIS HYATT, M.D., Kinston, N. C.

Mrs. C— says that eighteen years ago, while lifting a bed, she felt something give way in her back, and she fainted. Since that time she has had constant pain in the back, great pain during menstruation, and occasional difficulty in passing water.

She was treated for several years for uterine disease, having passed, as she expressed it, "through the hands of several experienced Doctors." Among them was one who had a *penchant* for finding ulcers on the os, and, as a matter of course, found one on hers. She states that the Doctor cauterized her uterus once every five days for nine months, until at last she rebelled, and would submit to the treatment no longer. Since then she gradually grew worse, and was at each menstrual period completely maniacal. On one occasion she escaped from her friends and ran down town with nothing on except her night clothes.

Was first called to see her while she was menstruating; found her lying in bed, shrieking with pain, and declaring that there was "a hole in the top of her head, and that it would burst." Only a few drops of blood had exuded from the vagina (menstruation had been scanty for a long time). Gave her a quarter of a grain of morphine to quiet pain; made a digital examination, and was surprised to find no os; introduced the speculum, and saw blood oozing from two minute openings which occupied the position of the os. These openings were too small to admit anything larger than the smallest sized knitting needle. Punctured the cervix with a bistoury to allow the blood to escape more freely, and promised to call in a few days and see if I could not relieve her.

At my next visit I incised the os, which I found was covered over by a thin layer of cicatricial tissue, due to the prolonged use of caustic. As soon as the cauterization was stopped, the ulceration produced by it healed, which resulted in closure of the os—hence the increase in the menstrual difficulty. The probe passed one inch and was arrested, which I discovered, by

rectal examination, was caused by retroflexion. A sea-tangle tent an inch long was passed into the cervical canal, and kept in position by a tampon. The tent was removed in a few hours, and the cervix kept packed with carbolized cotton. In a few days the cut surfaces had healed by granulation, leaving an os as large as normal. The flexion was overcome by a Hodge's closed lever pessary, which she wore for two months without any bad effect, except a little leucorrhœa towards the end of the time.

After the introduction of the pessary, her mental and menstrual troubles began rapidly to improve, and in a short time she declared herself as entirely well. At the time of the removal of the pessary the uterus was in perfect position, and the canal pervious its entire length. She has been discharged eighteen months, and has not had a return of any of her symptoms. Menstruation is now easy, plentiful and regular.

Correspondence.

Drainage for Health.

Editor of the Virginia Medical Monthly:

I am extremely glad to find that the extracts communicated by me to the May number of your journal, from Dr. Wilson's valuable paper (in *The Sanitarian*, of New York) on "Drainage for Health," have attracted the attention of a number of medical gentlemen whose opinions are entitled to weight. The facts stated by Dr. Hume Field in the July number of the *Virginia Medical Monthly* go far to confirm Dr. Wilson's theory. I have recently received two other communications on this subject, which are of sufficient interest to induce me to ask a place for them in the August number.

Very truly yours,

J. L. CABELL.

Hot Springs, Va., July 7, 1874.

Prof. J. L. Cabell,—Sir: In Norfolk and Princess Anne counties the surface is low and flat. The subsoil is only a thin stratum of clay, beneath which is generally found a substratum

of either marl or of quicksand. Pine roots, penetrating entirely through the clay, decaying, afford a passage for the surface water into this substratum, which acts as excellent under-drainage. Wherever this geological formation exists, Dr. Wilson's Theory of Drainage will doubtless prove practically efficient.

But throughout the Peninsula, and, indeed, throughout Tidewater Virginia, on the highest lands, are many basins which are filled with water by the rains of winter and spring. The ponds thus formed do not dry up until the droughts of summer and autumn. Many such ponds are seen in the forest, in which pine trees grow up, die and decay, thus affording natural, ready made experiments, demonstrating that the pine cannot be relied on as a means of drainage everywhere. Where the lands are elevated, the clay subsoil is generally too deep for the roots of the pine to pass through into a substratum which affords exit for water. Where the old roads descend the hills, their beds are washed out into deep cuts, like railroad cuts; and in the forests the roots of the pine, washed bare on the sides of these cuts, may be seen to terminate before they pass through the clay subsoil. This subsoil is probably sufficiently tenacious to admit of being bored through, at small cost, in the same manner that Artesian wells are bored, without tubing, in those portions of the Southwestern States underlaid by rotten limestone. The first twenty or thirty feet of such boring is made at little cost, but *haud facile descensus*, the cost increases in almost geometrical progression in ratio to depth. But not more than thirty feet would anywhere be necessary to bore through this clay into a substratum which would afford drainage by percolation.

It has been suggested in some agricultural journals to effect such drainage by digging wells and filling them with pine poles, and I have known this to be successfully practised; but a boring of six inches in diameter, filled with gravel or round stones, which abound in the country, can be made at a tithe of the cost, and would be equally efficient.

Besides these more elevated lands, where the clay subsoil is too deep for the penetration of the tap root of the pine, there are also some low, flat lands, where the subsoil does not afford the elements of nutrition sought by the tap root. The pine sends

down no root deserving that name, as is learned from observing the roots of pine trees blown down in this county, and in York county. But in such localities drainage by boring can obviously be effected more readily, and at less cost.

Very respectfully, yours, &c.,

Hampton, Va.

G. WM. SEMPLE, M.D.

Prof. J. L. Cabell,—*Dear Sir*: Excuse my writing a few lines to say that I read your paper in the *Virginia Medical Monthly*, on the influence of the roots of pine upon drainage, and the health of our pine lands; also, your recommendations with regard to the selection of this tree to be planted as a barrier around residences exposed to malaria. * * *

I have no doubt of the correctness of the observations of yourself and Dr. Wilson. I wish to make one additional remark: I have had my attention attracted to malaria, pine lands (having lived on them), drainage, etc., for a long while. Irrespective of the nature, qualities and peculiarities of the tap root of the pine tree, there are causes which render pine lands dryer and more salubrious than the richer, cultivated soils, which lie deeper than the peculiarities belonging to the tree which have been just cited. These are, that the pine grows where it does *because* the soil is different; it is more sandy. The stratum or layer of porous sand overlying the clay is deeper in the pine land sections, and this stratum also absorbs a great deal of the water which falls. With us on the coast or alluvial sections of South Carolina, the "plantation" cultivated lands bordering the swamps, river courses and creeks, are richer, and hence are selected for planting; but they also have as a foundation a layer of limestone or marl, which is impervious to water, which prevents the rapid absorption of water, and gives rise to malarial emanations or facilitates the decomposition of organic matter. Sections a few miles from the limestone formations, being more sandy and porous, can be inhabited all the year. Marl is also found in New Kent and other sections of Virginia, and I have no doubt the same influences are observed. Excuse this brief note.

Yours, with great respect,

F. PEYRE PORCHER, M.D.

Charleston, S. C., June 24, 1874.

Intestinal Obstructions.

Editor Virginia Medical Monthly:

It is much too warm to sleep to-night, so I have determined to attempt the letter which I promised you, and which must of necessity be a rambling one. When I last saw you, we were speaking about the great progress of our profession. Now, sir, no man can believe more fully in *true* progress than I do, and no one can have a greater zest for new and wonderful discoveries than I. Nevertheless, when a fellow informs me that he has his lever under the whole medical world, and is going to turn the *old thing* suddenly topsy-turvy, I am somewhat skeptical, unless I feel its joltings.

Great facts in medicine are seldom established by the efforts of one man alone, but by the experience of many. What a mine of wealth is experience to Doctors! I would not exchange the teachings of this school for those of any other. Then I am not before you to-night as an innovator, but what I have to say is rather confirmatory of an honest conviction which I have for some time entertained—that some things were known about medicine prior to this age of progress.

Since I have been in the practice of medicine, I have treated a great many cases of *Intestinal Obstruction*. These, as you know, are often very troublesome and unsatisfactory cases,

“And therefore commonly recover
As soon as Doctors give them over.”

I find the following in Wood's *Practice of Medicine*: “Dr. Crampton relates, in the Dublin Hospital Reports (vol. iv.), the case of a young woman, living at the time, who for seven years had labored under stercoraceous vomiting, with obstinate constipation, having had stools at distant intervals, only two or three during the year preceding the report, and none at all during the last eight months;” and another case reported by Dr. Bache, “which continued for a period of ten months, during which there was several times an absence of stools for more than 20 days, and once for 87 days, and yet the patient ultimately recovered.” Mine are not so remarkable as these, but they were of interest to me, and such as they were I give them to you.

The first case was one of ileus in a female 45 years of age,

caused by strangulated hernia. I found her with a knuckle of bowel half as large as my fist in the right inguinal canal, and she assured me she had been in this condition already four days. The tumor was tense, tender on pressure, of a livid red color, and was not reducible by ordinary taxis. Her tongue was heavily coated, red and dry, pulse feeble and frequent, and stomach exceedingly irritable, vomiting stercoraceous matter almost constantly. Bladders of ice were applied to the tumor, and opium in large doses was freely administered internally, both by the mouth and by the rectum. The next morning she was brought partially under the influence of chloroform, and the tumor was easily reduced; but notwithstanding this, she vomited stercoraceous matter for 14 days afterwards, at the end of which time her convalescence began.

The second case was ileus occurring in an old man of 70 years, from strangulated scrotal hernia. This hernia had been strangulated for several days before I saw him, and rough efforts by inexperienced hands had been made to reduce it. There was a tumor in the right side of the scrotum as large as a half gallon measure, presenting the symptoms of inflammation, increased heat, livid redness, great tenderness, and tense swelling. He would not submit to an operation, but got well after vomiting stercoraceous matter for 15 days, though the hernia remained irreducible after his return to health, and during the remainder of his life, some eight years.

The third case was obstruction from intussusception, attended with most painful and most alarming symptoms. This man had stercoraceous vomiting for sixteen days, and was restored to good health after passing twelve inches of the invaginated bowel by the anus. (For full report of this case, see *Med. and Surg. Reporter*, Aug. 31st, 1867—Dr. Gibbons of Charlotte, N. C., told me of a man who passed twenty-eight inches of bowel and was restored to health).

Frequently have I treated cases of intestinal obstruction from accumulations about the cæcum and sigmoid flexure; and I must admit that time and the good constitutions of my patients have worked wonders, and are deserving of the highest commendation.

In the three cases mentioned, active remedies were resorted

to. Cathartics, stimulating injections, water in large quantities thrown above the sigmoid flexure, position, taxis, etc., were tried without benefit, and were speedily discontinued. Inflation with air was not used.

The conclusions which I have arrived at from my experience in these and similar cases, are these: Could I always know in the beginning of a case that I had a real intestinal obstruction to deal with, I would never resort to active cathartics or irritating enemata, because they are very often positively injurious by adding to the irritability of the stomach, and causing painful and ineffectual peristaltic action. The same may be said of simple purgative enemata after the bowels below the obstruction have been emptied. Croton oil and all such remedies are dangerous, and the physician should resort to them as little as possible, for the reasons above stated. In fact, after we feel assured that an obstruction exists, we should pursue a "masterly inactivity," so far as all active remedies are concerned, unless a surgical operation becomes necessary, being assured that a meddling practice—the *nimia cura medendi*—may often cause the death of our patients. Ice, locally applied and given by the mouth, is a valuable remedy. Ice cream, iced lemonade, and also other acidulated drinks are very refreshing to the patient, and may be allowed in small quantities. A well ventilated room, perfect cleanliness and comforting words are of vast importance.

But *opium* is the king of remedies for such cases. In them, as in acute peritonitis, opium is both to patient and physician truly the *magnum Dei donum*. Given by the mouth, the rectum and sub-cutaneously, in full doses, it relieves pain, promotes sleep and rest, prevents peristaltic motion; in truth, it splints the bowel, and thus gives the patient the best chances for recovery. Of course nutrient injections should never be neglected. I have seen one patient live three weeks by this means alone, and get well.

Yet, back of all these, the honest physician must acknowledge that there is an innate principle within his patient, a life energy, a biotic force, a *vis conservatrix naturæ*, more potent to heal than all our boasted remedies; and for this, I for one am thankful.

R. L. PAYNE, M.D.

Lexington, N. C.

Explanatory Letter of Prof. Roberts Bartholow, M.D.

In view of the resolution of censure presented at the recent session of the American Medical Association, and referred to the Judicial Committee (see our last issue, page 220-1), it is but justice that we should publish the following letter, originally addressed to the *British Medical Journal*, but which we copy from the *Phil. Med. Times*, June 20, 1874 :

"*Sir*: A case of epithelioma exposing the brain, on which I ventured to make some experiments, has excited unfavorable comment in your widely circulated journal and elsewhere. Under these circumstances, I beg to offer some explanations, which, whilst they do not justify the experiments in question, at least, it appears to me, put the matter in a less offensive shape.

"1. The patient was hopelessly diseased with a rodent ulcer, which had already invaded the dura mater. The ulcer was rapidly extending, and threatened an early extinction of life.

"2. The patient consented to have the experiments made.

"3. It was believed that fine insulated needles could be introduced without injury that would affect the progress and termination of the case, for the following reasons: The brain has been incised to permit the escape of pus, a notable and successful example of which has recently occurred in London. Portions of the brain substance have been lost, and yet the patient survived; for example, the Massachusetts case, in which a tamping-iron was driven through the brain, the patient recovering, and dying many years afterwards of another malady.

"4. The faradic current was used; and this has, as is well known, no electrolytic action.

"5. The fatal result was attributable to the progress of the epithelioma. The erosion of the skull already had existed thirteen months. The thrombus found *post mortem* in the longitudinal sinus could not have been caused by the needles, which were introduced some distance from it on either side.

"Notwithstanding my sanguine expectations, based on the facts above stated, that small insulated needle electrodes could be introduced without injury into the cerebral substance, I now know that I was mistaken. To repeat such experiments with the knowledge we now have that injury will be done by them—although they did not cause the fatal result in my own case—

would be in the highest degree criminal. I can only now express my regret that facts which I hoped would further, in some slight degree, the progress of knowledge, were obtained at the expense of some injury to the patient.

"I am, etc.,

"ROBERTS BARTHOLOW."

"*Cincinnati, O.*"

Analyses, Selections, &c.

Valuable Surgical Contributions by Western and Southern Surgeons.—Prof. Paul F. Eve, M.D., Nashville, Tenn., submitted through Dr. Brodie, at the late session of the American Medical Association, the following interesting paper, which was crowded out of our last issue. We see from the first issue of the *American Medical Weekly* that this article was originally prepared for that journal:

In preparing brief biographical sketches of eminent physicians of the Southwest for a cyclopædia, now in the course of publication, attention was directed by a friend to the valuable contributions made to the surgery of our country by those who had resided in obscure villages or small towns of what was then known as the West, and by those, too, with few exceptions, who enjoyed only the ordinary professional advantages in the early years of the present century. If true, this should be at least an encouraging circumstance to all engaged in medicine, whatever may be their resources for study or observation. The following facts will explain what is here meant:

1. *The First Successful Amputation at the Hip Joint* in America, and it may be the first successfully performed in civil practice the world over, was done by Walter Brashear, M.D., Bardstown, Nelson co., Ky., in August, 1806. * * * The patient was a boy of 17 years; the method of operation, the circular, with incision over the trochanter major to complete the disarticulation. After his recovery he went to St. Louis, Mo., where he was a resident in 1846.

At a public dinner given to the celebrated Henry Clay by the city of New Orleans, Dr. Brashear being present, to a sentiment complimentary to this operation, the great Kentucky orator exclaimed: "Doctor, they have got you on the hip."

It was nearly twenty years, viz: in 1824, before this most formidable of all amputations was successfully repeated in this country, and then performed by the most skillful surgeon she has ever produced—the late Valentine Mott.

2. *First Excision of the Clavicle.* In 1828 Dr. Mott published his case of excision of the clavicle for osteo-sarcoma, believing it at the time to have been the first operation of the kind ever performed. So formidable, too, did he consider it, that he subsequently called it his "Waterloo operation." Little did he suppose that here again he had been preceded by another Kentuckian, just as he had been in the hip-joint amputation, and it so happened by about the same number of years. The first successful excision of the entire clavicle ever achieved was done by Dr. Charles McCleary, Hartford, Ohio co., Ky., on the 4th of May, 1811, as reported by James H. Johnson, M.D., of New Orleans, La., in the *Med. & Surg. Jour.* of that city for 1850. Dr. Gross (vol. II p. 1,078, *System of Surgery*) says it was done in 1813, and on a boy of 14 years, for scrofulous caries of the right collar bone, who survived the operation many years.

3. *Ovariectomy.* To Dr. Ephraim McDowell, of Danville, Boyle co., Ky., is the world indebted for an operation now performed everywhere, to the saving of thousands of lives heretofore condemned to a lingering death by an incurable affection. The cutting out of a diseased ovary successfully was first done in the well known case of Mrs. Crawford, in Danville, December, 1809. This was soon followed by two other cases, and the three published in 1816 in the *Eclectic Repertory and Analytic Review* of Philadelphia. * * *

4. *Extirpation of the Uterus.* Prof. Gross, in his *Surgery* (vol. II, page 926), says: "Vaginal hysterotomy was first performed in this country in 1830, by Dr. J. Briggs, of Kentucky. Prof. Bowling publishes the fact that Dr. J. M. Briggs, Sr., of Bowling Green, Ky., has priority for this operation in the United States.

5. *Lithotomy and the Due Preparation for a Capital Operation.* Dr. Benj. Winslow Dudley, late of Lexington, Ky., has confessedly done more with the roller and simple diet than any one who has practiced medicine. It was reserved for him to teach the profession how to prepare a patient for a critical operation. He will long be known as the great lithotomist of the 19th century. It has been said of him that he operated 100 times in succession for stone without a death or failure.

Here, then, in a few words, is what a single Western State, Kentucky, has done for American surgery—and this, too, in a period of some thirty years. Can as much be said of any other, or even an approximation to it? Kentucky should henceforth be called the banner State for surgery.

6. *Resection of the Inferior Maxillary Bone.* On the 6th of February, 1810, Wm. H. Deaderich, M.D., then a practising physician in Rogersville, Hawkins co., Tenn., removed nearly one-half of the lower jaw-bone from a lad 14 years of age, “without known precedent or professional counsel or aid.” The patient fully recovered. This was the first operation of the kind ever performed, and was originally published in the *American Recorder*, of Philadelphia, then in Gibson’s *Surgery*. The case excited at the time great interest, both in this country and Europe. Drs. Mott, Blackman, Smith, Gross and others have all admitted that this was the first operation of the kind. In the *Collection of Remarkable Cases in Surgery*, edited by myself in 1857, is a letter to Dr. Avent, then chairman of the Surgical Committee for Tennessee, 1853, now Professor of Surgery in the Memphis Medical College, from Dr. Lea, one of Dr. Deaderich’s friends, dated December, 1822, which stated that he induced Dr. D. to publish this case. * * *

7. *Intussusception Successfully Relieved by Gastrotomy.* In the *Penn. Med. Jour.*, 1835, republished also in the *Amer. Jour. Med. Sci.* the same year, is the report of a case of intussusception by Mr. W. W. Thompson, then a student of medicine, of an operation by John R. Wilson, M.D., in a negro man 20 years old, in December, 1821, then of Rutherford co., Tenn. Other means having failed, 17 days after obstinate obstruction in the bowels, the abdomen was opened by an incision two inches

above and three below the umbilicus, when the ileum was found invaginated and threatened with mortification; was drawn out carefully and released; the wound then closed by sutures and plasters, when the patient soon voided the crude mercury he had taken the night before. He fully recovered. * * * So hazardous an operation in regard to diagnosis and result has not yet met with much encouragement by the profession.

7. *Curative Treatment for Vesico-Vaginal Fistula.* It was while the distinguished J. Marion Sims, M.D., was practising medicine at Montgomery, Ala., that he successfully introduced the method for relieving one of the most deplorable affections in the female sex. He says himself, as if by inspiration, in the happy combination of the duck-bill speculum, silver suture and sigmoid catheter, he finally succeeded in permanently closing the fistulous opening between the bladder and vagina. The details of his operation were first published in the *Amer. Jour. Med. Sci.* 1852. His peculiar speculum has actually produced a new era in the treatment of female diseases. Dr. Sims now resides in New York city, is the bearer of the Cross of Honor from France, Belgium, Spain, Portugal and Italy. He was surgeon-in-chief of the Anglo-American ambulance at the battle of Sedan, which culminated in the downfall of the French empire under Napoleon III. He is also the author of several works on gynecology, and the founder of the New York Woman's Hospital, valued at a million.

9. *Successful Application of a Ligature to the Brachio-Cephalic Artery.* Of fourteen published attempts to ligate the arteria innominata, the only one which the patient survived occurred to Dr. Andrew Woods Smyth, of New Orleans, La. The operation was performed in the Charity Hospital in that city on the 15th of May, 1869. Its success is attributed by Dr. Smyth, and no doubt correctly, to his tying also the right vertebral artery. Ligatures had previously been applied simultaneously to the innominate and right carotid; but hemorrhages recurring at irregular intervals, at the end of fifty-four days the operator tied the right vertebral. Four months from the first operation, the patient was announced to have fully recovered.

10. *Excision of the Ulna and Radius—The Usefulness of*

the Limb Preserved.—The operation of removing the entire ulna and radius, except a small portion of the lower extremity of the latter, was first performed by Dr. Compton in 1853, when he was connected with one of the medical colleges of New Orleans, and is published in the *Med. Register* of that city. Dr. Gross and Dr. Ashhurst admit it in their works on surgery, and it is found in my collection of *Remarkable Cases in Surgery*. The accident requiring its performance occurred to a sailor boy, who, while asleep on the anchor chain, was caught in its running out, and the limb severely fractured. April 18th, the Doctor removed both radius and ulna entire, excepting a portion of the inferior end of the former bone. The forearm is two or three inches shorter than the other, but it has assumed a healthy condition, can be used to a limited extent, and the boy, 11 years of age, fully recovered.

11. *Extirpation of a Portion of the Os Coccygis for Neuralgia.*—The late Prof. Josiah C. Nott, M.D., Mobile, Ala., first exsected a part of the os coccyx for distressing nervous affection of the neighboring soft parts. This he did by removing two segments of this bone in 1843 of a lady patient of 25 years, who had been a great sufferer, and whom he partially relieved by it. This is believed to be the first instance of such an operation. The case is published in the *New Orleans Med. Jour.* for May, 1844, and copied by the *Amer. Jour. Med. Sci.* for October of the same year. In Prof. Gaillard Thomas' edition of the celebrated accoucheur of London, Prof. Barnes, it is stated that J. C. Nott, M.D., performed this operation for coccydynia fifteen years before the late Dr. James Y. Simpson did it.

12. *Successful Excision of Six Inches of Gangrenous Intestine in Hernia.*—Dr. Charles A. Luzenberg, while in charge of the Charity Hospital in New Orleans, La., soon after his return from Europe, 1834, laid open a strangulated hernia, and finding the intestine completely mortified, did not hesitate to remove the dead parts, stitched the serous surfaces together, and the patient fully recovered in thirty-five days. As early as 1832 he recommended the exclusion of light to prevent pitting in small-pox. Dr. Luzenberg died quite young, less than 43 years old, but had already acquired the reputation of a veteran and most skillful

surgeon, not only in the land of his adoption, but also in Europe.

13. *The First and Probably the only Successful Removal of the Kidney* performed in this country, occurred in the practice of Prof. G. T. Gilmore, M.D., now of Mobile (Ala.) Medical College, December, 1870, the patient a negro woman aged 33, and she pregnant. Prof. Simon, of Heidelberg, as is well known, revived the operation on this organ by the successful result of his case of extirpation in 1870; while it may be true that Marchetti, an Italian surgeon, had practised nephrotomy during the 17th century. Several recent attempts at these operations have all proved fatal. * * * His patient, as a recent letter informs us, has again been safely delivered of a living child. Of course the distinction is here made between the extirpation of the organ under consideration and nephrotomy proper.

14. *Removal of the Christa Galli for Fracture of the Cranium—Patient Surviving Six Days.* This is believed to be the only case of the kind on record, and from the *Nashville Jour. of Med. and Surg.* for 1852, has been extensively copied. *

* * On the 15th of December, 1851, the writer, assisted by the late Prof. John M. Watson and Dr. Conwell, still a practitioner of this city, relieved a patient who had been dashed out of a buggy against a telegraph pole—he being drunk while his horse ran away with him. The os frontis was extensively fractured; shock so great that his pulse fell to 44, and his breathing became stertorous. Twelve pieces of bone were elevated, the hemorrhage from the nose ceased, and the circulation rose to 62. In one of the fragments removed, the crista galli, with the foramen cæcum, are distinctly recognized. The patient, unfortunately, became uncontrollable, would get out of bed, walk into an adjoining room, and in these movements struck his forehead. From the exposure to cold weather, so great that the wet cloths applied to his head and wound would freeze, it became necessary to remove him a distance of some hundred yards to a room with fire. Cerebral meningitis, however, supervened, and he died on the sixth day—having lived long enough to create hopes that under more auspicious circumstances he might have recovered. Was this possible?

In the collection of these cases during the ordinary professional labor of the past few days, it will be perceived that it has been limited to four of the original Western States; still it may possess sufficient interest to claim a passing notice even of the Association. It certainly must be a surprising fact to learn how much of American surgery is due to the pioneers of the profession during the first quarter of the present century.

Punctured Wound of the Kidney—Recovery.—Dr. J. J. Castellanos reports in the *New Orleans Med. & Surg. Jour.*, July, 1874 [by typographical error, as we are informed, credited to Dr. A. W. Perry], the following important and remarkable case:

Joseph Mazzet, æt. 36 years, of a bilious nervous temperament and of dissipated habits, was wounded on Sunday, February 8th, 1874, at 2 o'clock in the morning, in the right renal region, the wound ranging from outwards, inwards and obliquely downward, and producing severe external hemorrhage. From the width and extent of the slits and rents which the puncturing instrument seemed to have made upon his vest, shirt, undershirt and pants, it was evident that the thrust had been directed quite vigorously, and it was to be presumed that the wound was a deeply penetrating one, and therefore of a serious nature. My friend, Dr. Wiendahl, was called to see the case later in the morning, and reports that patient had voided darkened bloody urine at 6 o'clock, i. e., 4 hours after the morning, and continued to void similarly colored urine for three days. On the 4th day, having had castor oil administered to him to relieve constipation, which had been induced by opiates and styptics, patient had a recurrence of active, pure hemorrhage, of nearly a quart in quantity. This hemorrhage persisted, though in smaller quantity, for four or five days, after which another hemorrhage, not as copious as the former, set in. This persisted also, with some intermission, for several days. The date of last profuse hemorrhage was February 28th, i. e., 20 days after the infliction of the wound. Large clots were then voided, and prolonged syncope followed, so severe, indeed, as to lead us to sur-

render all hopes of recovery for our patient. This, however, was the last hemorrhage; patient continued for several days to void discolored urine, with now and then small coagula, which disturbed the patient exceedingly, inasmuch as he had a stricture of the urethra, and had been suffering for several years past from chronic cystitis and membranous urethritis.

This case I diagnosed punctured wound of the kidney, the knife having gone through both the cortical and tubular substances into the pelvis of the kidney, causing the severe hemorrhages, the flow of which the patient was sometimes made aware of by the gurgling and peculiar "opening of a stop-cock" sensation which he describes, as the blood poured from the right ureter into the bladder.

Upon reference to books, I find my case peculiar by the absence of two important symptoms, namely, external escape of urine from the wound, and retraction of corresponding testicle, the burden of explaining which I decline to assume.

My case made a perfect recovery. I have followed it, in consultation with Dr. Wiendahl, since the fourth or fifth day of the infliction of the wound, and have accurately set down the facts I submit to-night.

Report of the Committee on Ethics.—At the late meeting of the American Medical Association, Dr. N. S. Davis, of Illinois, Chairman of the Judicial Council, read the following report, which was adopted:

The undersigned Committee, to whom was referred the question of a general revision of the Code of Ethics of the American Medical Association, respectfully report as follows:

Soon after the adjournment of the annual meeting in May, 1873, the Chairman of your Committee, being desirous of ascertaining how far there existed a desire in the minds of the profession to have the Code changed, addressed letters of inquiry to thirty or forty men in different parts of the country, who might be supposed to represent the general sentiment of the profession in their respective districts, from twenty-five of whom answers were received. Fourteen expressed an entire approval of the Code as it is, and thought it better to attempt no changes. Six were opposed to any general revision, but supported slight

changes in some sections, while only five expressed such dissatisfaction as to indicate a desire for thorough revision.

If these correspondents might be regarded as fairly representing the profession, any important changes in the Code would be in direct opposition to the wishes of a large majority of those for whose guidance it was framed. Those who have expressed a desire for changes in the present Code are readily divided into two classes. The first class appear to look upon a Code of Ethics in the same light as ordinary By-Laws, and consequently regard all in the present Code, relating to the duties of patients to the physician, of the public to the profession, and of the profession to the public, as superfluous and useless. They would retain nothing except the rules governing the intercourse of physicians with each other; and a very few of this class object to any *written* rules, claiming that the unwritten sense of *honor* belonging to members of an educated profession is sufficient to afford all needed guidance and control. It seems to us that the objections of this whole class are founded on a narrow and imperfect conception of the real nature and objects of an Ethical Code. The latter, instead of consisting of a set of rules or By-Laws, simply defining the duties and privileges of members of some organized Society, should be a concise and full exposition of the relations sustained by a profession to the rest of the community, the mutual obligations imposed by such relations, and the rules governing members in their intercourse with each other. Hence, a Code of Ethics for our profession must partake more or less of the nature of a moral essay, developing principles for guidance equally applicable to all places and times, instead of a few simple rules applicable to the members of some particular Society. It was with this view that Dr. Percival wrote his celebrated essay in the latter part of the last century, and which has been regarded as a standard authority in Europe from that time to the present. The same idea evidently controlled the very able Committee appointed by the preliminary convention in 1846 to report a Code of Ethics for the profession of this country, and who gave us the admirably concise and well arranged summary of the principles evolved by Percival, which constitutes our present Code.

To strike out, as some have proposed to do, all relating to the duties of patients, the community, and the public toward the profession, would be to destroy the completeness of the work, and obscure the meaning of what was retained. For the members of any given profession cannot rightly appreciate the relations they sustain to each other, without considering at the same time their mutual relations and duties to the community in

which they live After a very careful examination, we are satisfied that the present Code of Ethics presents the true ethical relations and duties of the profession, in a form as concise, as well arranged, and as complete as it is possible to express them. The principles and rules of conduct enumerated are clearly stated, and are equally applicable for the guidance of all who attempt to practise the healing-art, whether they are members of any medical organization or not.

The second class, whose members desire alterations in the present Code of Ethics, do not object to its general scope, but ask for amendments or additions to particular sections only. With only a few and unimportant exceptions, these propositions all relate to two subjects, namely, *specialties* and bestowing professional services by *contract*. Concerning the first of these, there seems to be much false reasoning and needless irritation. If *specialists*, or those who limit their practice to some one class of diseases or accidents, are members of the profession, it follows, logically, that they must be governed in all respects by the same ethical principles as the general practitioners; for no enlightened body of men can consistently have one Code of morals for one part of its members and another Code for the rest. Whatever may be regarded as derogatory to the dignity and welfare of the practitioner, must be equally so to the specialist so long as he is recognized as a member of the profession. If the one may not issue cards, hand-bills, etc., calling the attention of those laboring under particular diseases to themselves, neither can the other, without violating the principles of both justice and equality.

The Code of Ethics very properly makes no mention of specialties or specialists, but presents plainly the rules necessary for the maintenance of professional character as applicable to all. But we are asked, how, then, can those who wish to pursue a special practice make known their position to their brethren and the public? We answer, that the title of Doctor of Medicine covers the whole field of practice, and whoever is entitled to the appellation has the right to occupy the *whole* or any part of the field, as he pleases. The acceptance of this honorable title is presumptive evidence to the community, that the man accepting it is ready to attend practically to any and all duties which it implies. As all special practice is simply a self-imposed limitation of the duties implied in the general title of doctor, it should be indicated, not by special or qualifying titles, such as *oculist*, *gynæcologist*, etc., nor by any positive setting forth of special qualifications, but by a simple, honest notice appended to the ordinary card of the general practitioner, saying, "Practice

limited to diseases of the eye and ear," or "to diseases peculiar to women," or "to midwifery exclusively," as the case may be. Such a simple notice of limitation, if truthfully made, would involve no other principle than the notice of the general practitioner that he limits his attention to professional business within certain hours of the day. Neither could it be regarded as a claim to special or superior qualifications. To give the specialist any privilege beyond this, would be to invest him with a special privilege inconsistent with the equality of rights and duties pertaining to the whole profession. We see no reason, therefore, for recommending any change in the present Code of Ethics in reference to this subject.

The remaining topic, concerning the bestowal of professional services under specific *contracts* specifying the amount of pecuniary compensation, is of sufficient importance to require careful attention.

The present Code of Ethics, while sanctioning a most liberal bestowal of gratuitous professional service to the poor, whether as individuals or in public charitable institutions, and in aid of the sanitary interests of communities, yet expressly prohibits the bestowal of such services on well-to-do individuals, endowed, mutual benefit, or any kind of money-making institutions, societies or corporations. It also expressly prohibits all attempts to attract attention or make merchandise of charity by ostentatiously parading before the public notices proffering services and medicine to the "poor gratis." We see no reason why this is not sufficient so far as relates to the regulation of gratuitous services. To govern the matter of compensation, the Code simply gives us the following general declaration: "Some general rules should be adopted by the *faculty*, in every town or district, relative to *pecuniary acknowledgments* from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit." The aim appears to have been, to allow sufficient variations in the rate of compensation to accommodate the varying habits and circumstances of different communities, and yet to bind each individual to an honorable compliance with the general rules established by his professional brethren. Such being the correct ethical principle, the difficulty consists in tracing and maintaining clearly its practical application. That the principle laid down in the paragraph just quoted is inconsistent with all contracts or agreements to attend individuals, families, companies, corporations, or any associations or institutions other than those of a strictly charitable character, for a specified sum per month or year, without regard to the amount of medical services that

might be required in the time specified, no one can reasonably doubt. It seems to us equally inconsistent with the ethical rule to enter into a contract with a manufacturing company to attend their employees, or with a school to attend its patrons or scholars, for a fixed sum per annum, to be derived from the levy of a certain percentage on the wages of the employees or on the tuition fees of the students; for however plausible may be the humanitarian idea of securing for the employee and student adequate medical attendance when sick at the smallest average cost, the practical working of the system violates both the rule that compensation for medical services should be in accordance with the kind and amount of services rendered, and that every individual and family should be free to choose their own medical attendant without dictation or indirect restraint.

These observations do not apply to a certain kind of contract service, sometimes required in connection with the medical staff of the army and navy, nor the hospital tax on sailors in the marine hospital system, for reasons too obvious to require mention. One other subject requires a few moments attention. There is a class of public charitable institutions, such as county almshouses, orphan asylums, etc., supported by public taxation. In many of the States the public authorities having control of such institutions, have annually asked for bids from the profession, offering to award contract for professional services to the one who should bid for the lowest pecuniary consideration. While as charitable institutions any member of the profession might offer his services to such of the poor inmates as might ask for them, gratuitously; yet the idea of asking members of the profession to bid against each other, for the pay for public professional services, is repugnant to every feeling of professional honor, and often productive of great injustice to the sick poor.

The public authorities in all such cases should fix just rate of compensation for the necessary medical services as they may deem best, and then appoint the best medical man who is willing to accept the compensation proposed. And, we have no doubt, but that a proper attention to this subject on the part of the profession would secure the necessary change.

It is, however, very desirable to so manage all our pecuniary relations with the public, and especially with municipal and legislative authorities, that we avoid creating the impression on the public mind that the profession and its social organizations are little better than mere trades-unions, having for their chief object mutual pecuniary protection. After carefully reviewing the whole subject, your Committee do not recommend any alteration in the present Code of Ethics. On the contrary, we desire

to express the opinion that if every medical school and society would supply each graduate as he left the school, and each member initiated into the society, with a printed copy of the Code, accompanied with the injunction that it be carefully studied, it would be productive of much good, direct to the profession and indirectly to the community.

Croton-Chloral.---The *British Medical Journal*, (Dec. 20th, 1873), contains a description given Prof. Oscar Leibreich, M. D., of Berlin, of the chemistry, action and uses of this new agent, which he introduced—of which we make the following analysis :

Croton-chloral is formed by the action of chlorine gas or aldehyde. It possesses no relation whatever to croton oil, although its chemical constitution proves it to be the chlorated aldehyde of crotonic acid. Croton-chloral is dissolved with difficulty in water, and it crystallizes in small glittering tablets.

Its action, though similar to that of chloral-hydrate, differs widely with regard to its physiological effects. One drachm of the substance, dissolved in water, and introduced into the stomach, produces in from 15 to 20 minutes a deep sleep, accompanied by anæsthesia of the head. Whilst the eye-ball loses its irritability, and the trigeminus does not react on being irritated, the tone of the muscles remains unaltered.

Maniacs experimented on during maniacal attacks remained quietly sitting on their chairs in a deep sleep, their pulse and respiration being unchanged for two whole hours together. If anæsthesia had reach so high a degree in consequence of the application of chloral-hydrate, the patients would have dropped from their chairs, and both their pulse and respiration would have been considerably retarded.

Dr. L. has seen croton-chloral act in the same way on healthy individuals. In some cases of tic douloureux, pain ceases before sleep sets in ; but the remedy acts only as a palliative in this disease. It is, nevertheless, to be preferred to morphia, because it has effects as good as the latter remedy, without being so detrimental to the constitution in general. Dr. L. has never observed any unfavorable effects on the stomach or other organ, although he has made frequent experiments with it.

The indications for its use are found in (1) cases where chloral hydrate is inapplicable on account of heart disease ; (2) cases of neuralgia in the district of the trigeminus nerve ; (3) cases where very large doses of chloral are necessary to produce sleep ; he therefore recommends the addition of croton-chloral to hydrate of chloral.

Whilst examining the difference between the action of hydrate of chloral and that of croton-chloral, he discovered that it is not the first, but the second, product of decomposition of the latter substance, which is brought into action, on account of the first being too rapidly destroyed. Croton-chloral when subjected to the influence of an alkali first forms allyl-chloroform, a tri-chlorate body, which is rapidly decomposed into a bi-chlorated substance, called bichlor-allylene. Now, both chloroform and tri-chlorated substances act, as he has shown, in their *first* stage on the brain ; in the *second*, on the spinal cord ; and in the *third* on the heart. The retardation of respiration is to be explained by the agency of these substances on the last mentioned organ. Bichlorated substances act differently, as is proved by bichloride of ethylene. Even if the circulation of the blood in an animal has been stopped by this latter agent for one minute, life may be restored by artificial respiration, which is impossible whenever tri-chlorated substances have produced this effect, in which case the cardiac muscles remain paralyzed. In animals poisoned by croton-chloral to such a degree that both circulation and respiration are stopped entirely, artificial respiration is able to restore the action of the heart immediately, and the life of the animal may be thus saved. Bichlor-allylene, inhaled by the lungs, produces the same effect on animals as croton-chloral.

These bichlorated substances, therefore, act on the brain, spinal cord, and medulla oblongata, but not on the heart, which explains why the respiration and circulation remain unaltered in man by a medicinal dose. But under favorable conditions we can produce in animals the effects of the first product of decomposition of croton-chloral, i. e., tri-chlorated substances, or allyl-chloroform. In order to observe these effects, introduce an immense dose of croton-chloral into the body, when paralysis of the heart actually does ensue.

Diagnosis of the Early Stage of Hip-Joint Disease.—Dr. L. A. Sayre, in a clinical lecture in the *Medical Times* says:

My rule for the normal standard of position from which comparison is made in forming a diagnosis of this disease is as follows:—Place the patient on her back upon a hard surface, her limbs parallel to each other, in continuation of the long axis of the body, the spinous processes touching the table, the pelvis fixed. Draw a line from the sternum over the umbilicus to the pubes; another from one anterior superior process of the ilium to its fellow; the lines will intersect at right angles if the trunk and pelvis bear their normal relations to each other. If no obstruction exist at the joint the leg can be extended perfectly straight, the popliteal space touching the table. The position in which the diseased limb must be held to give comfort to the patient while the sound limb and pelvis are thus fixed, is the deformity indicating the stage of the disease. This deformity is due to tension in the joint from effusion and muscular contraction, the result of reflex irritation, or to complete muscular rigidity.—*Med. and Sur. Repr.* July 18, 1874.

Carbozotate of Ammonia.—Dr. W. C. Person, Air Mount, Miss., in a letter to the July No. of the *St. Louis Medical and Surgical Journal*, says: The objections to quinine are numerous. * * * The inducement to adulterate is too great. The quantity necessary to prevent a paroxysm of pernicious intermittent, in this section, would astonish the physicians who accept the teachings of the Dispensatory, in regard to quantity. * * * Repeated disappointments in its effects last summer induced me to experiment with carbozotate of ammonia. * * * I have been using it constantly ever since in a great many cases requiring the use of an antiperiodic with more uniform success than I generally derived from quinine or arsenic either. Several of my cases seem to indicate that it arrests the paroxysms more completely than quinine. I have succeeded with it in cases of chronic quotidian ague of long standing, while quinia, arsenic and the whole catalogue of tonics and alteratives had been tested thoroughly. For ordinary chills, so

prevalent in the Southern States, I have ceased using quinia entirely. In order to test the virtues of the drug more fully, I divided my stock of the salt with another physician who reports perfect success. In one case, however, it produced free emesis and intense cephalalgia—the effects of an overdose probably. It is rarely necessary to give more than one grain twice daily, until I give six grains. I have never had occasion to push the remedy to the extent of producing discoloration of the skin. I have not tested its efficacy so thoroughly in remittents as I have in intermittents. But my observation, as far as it extends, proves it to be as effective in one form as the other. I have given it regardless of febrile excitement, with impunity, and with the happiest effect. The result of my experience is that while quinine possesses so many valuable and varied therapeutic properties that it is not likely to be superceded by any other remedy; yet, carbozotate of ammonia possesses properties which renders it preferable to quinine in a great many instances as an antiperiodic, and is, therefore, worthy of further trial, especially by Southern physicians.

Phosphoric Emulsion.—In the May number of *Archives of Electrology and Neurology* we find a modification of the formula for this emulsion, which has long been in use in the Utica Insane Asylum as a most excellent brain and nerve food.

R. Cod Liver Oil..... ℥iv.

Glyconin..... ℥ix.

(Glyconin is made by thoroughly triturating glycerine and yolk of egg, equal parts.)

Add to the glyconin twenty drops of the essential oil of bitter almonds; then add the oil to the glyconin *very slowly*, drop by drop, stirring vigorously all the time. The success of the emulsion depends on the thoroughness with which this task is performed. Then add:

Jamaica Rum..... ℥ij.

Dilute Phosphoric Acid..... ℥ss to ℥j.

The average dose for an adult is one tablespoonful after each meal, being regulated mainly by the amount of phosphoric acid.

Jamaica rum seems to cover the taste better than sherry wine, which has usually been employed.

If this prescription is properly prepared, the ingredients do not separate, but the mixture keeps for a long time without apparent change, and is not disagreeable to the taste. If need be, pyrophosphate of iron, or strychnine, or Fowler's solution, may be added.

We have used it, especially in hysteria, and allied affections; and in organic diseases of the nervous system it is also valuable. Consumptives frequently take it in preference to cod liver oil alone. To those not familiar with cod liver oil, neither the odor nor taste of the emulsion, when well made, suggests the presence of the oil; so that, as cod liver oil has a somewhat unpalatable name, it is sometimes better, in prescribing for nervous patients, to call this the "Phosphoric Emulsion."

[The original prescription calls for thirty drops of the essential oil of bitter almonds; but as this is an unnecessarily large quantity, and is attended with some risk, we have changed the quantity to twenty drops, which answers every purpose. We will add that we have used this prescription, and it has fulfilled every expectation placed upon it as a general nerve tonic.—ED.]

Cauterization of the Uterus.—Dr. Wm. A. Gillespie, Louisa C. H., Va., communicated some time ago an article on this subject to the *Boston Med. & Surg. Jour.*, which we find copied in the *London Medical Record*, June 24th, 1874. He suggests the following simple, easy and efficient plan for cauterizing the canal of the cervix, and even the cavity of the body of the uterus, which he has practised repeatedly in a large number of cases, with the happiest results.

Take an ordinary sponge tent and coat it with beeswax, and then roll it for some time with a knife in powdered nitrate of silver, which will sink into, and adhere to, the wax. Then, through a suitable speculum, carry the prepared tent through the cervix, and, if desirable, to the fundus, and let it remain twenty-four hours. No remedy in my hands has done more good in as short a time, in chronic inflammation, engorgement, enlargement or ulceration of the os and cervix uteri, and I have never known any unpleasant results from it.

Removal of Calculus from the Female Bladder by Dilatation of the Urethra.—Dr. R. H. Gale, of Louisville, in the *Transactions of the Kentucky State Medical Society*, 1874, gives a most interesting report on this subject, illustrated by two cases. He says :

I have been led to believe that by relying upon the elastic properties of the muscular fibres dilatation could be carried to such an extent that almost any stone could be removed from the female bladder whole, or by crushing and removing portions at a time. I know not how far it can be carried, or the limit fixed. The only danger to be apprehended is incontinence of urine by a failure of the muscular fibre to regain its contractile power, and the cystic trouble arising from the necessary manipulation, exciting the already existing tendency to inflammatory action, caused from the presence of a foreign body there. The ability to do this without seriously compromising life is almost indefinite. I do not believe we have any definite information with reference to the extent that patient dilatation can enlarge the female urethra and yet not destroy its integrity, so that it may recover its tone, and cystitis be avoided or controlled.

In support of these views I herewith report two cases, which seem to go beyond the size that surgeons have heretofore considered it safe to attempt removal without the use of the knife.

One was reported to me by Dr. Isaiah H. White, of Richmond, Va. The dilatation in this case was effected by taking the female metallic nozzle of a Davidson syringe, scraped down to the size of a No. 8 sound, the end cut off, then slightly curved to resemble a female catheter; over this was fastened a thin gum bag, and after being introduced into the urethra the bag was gradually distended with warm water by means of a Davidson syringe. The patient being under the influence of chloroform, the urethra was easily dilated in five minutes, so that the index finger was introduced within the bladder; and by hooking it around the stone, which was lodged in the bas-fond of the bladder, and with the aid of the index finger of the other hand in the vagina, the stone was easily removed without the aid of forceps. It was of the phosphatic variety, and measured about one inch in its long and three fourths of an inch in its short diameter.

The sphincter muscles contracted at once, and no dribbling of urine followed. The operation was performed August 15, 1872.

The other case came into my hands in May, 1872, and in this case the dilatation was effected by first introducing a common-sized female catheter covered with ointment of belladonna; after this a larger-sized catheter; and then the index finger was well anointed with ointment, and the ball placed over the mouth of the urethra, when a thread-like ring was felt, which soon gave way, and the finger passed into the bladder, and the stone found lodged in the *bas-fond*. The finger was then withdrawn, and an ordinary pair of uterine dressing-forceps were easily introduced, and the stone grasped without difficulty. The handles were then fixed with a piece of stout tape, and held in the left hand; the index and middle fingers of the right hand were passed into the vagina, and up and behind the stone, and with gentle pressure with the fingers and traction upon the forceps the stone was easily extracted. It weighed one ounce, and measured one and a half inches in its long, and one and a quarter inches in its short diameter.

No chloroform or any other anæsthetic was used on account of the patient's declining to take it, and in less than thirty minutes from the time the patient was placed on her back, with knees well flexed, the operation was over and she replaced in bed.

The sphincter muscles in this case contracted promptly. No dribbling or incontinence of urine supervened. An ordinary catheter was introduced and about four ounces of mucilage of elm-bark thrown into the bladder, which was repeated three times daily for two or three days. Cold cloths were kept over the lower portion of the abdomen and the vulva for the same time. One fourth of a grain of morphiae sulphas was given, and repeated in four hours. Quiet was produced and refreshing sleep supervened. The bowels were moved daily with saline cathartics, and I had the satisfaction of seeing my patient free from any inflammatory action about the bladder or adjacent tissues.

Some weeks after this operation I had an opportunity, in connection with Drs. A. Toon, J. L. Martin, and W. P. Tinsley, of making a post-mortem examination of this same patient, she having died from acute hepatitis. The autopsy revealed no lesions of any kind about the bladder or adjacent organs.

A Case of Diphtheria, Resulting in Strabismus, Aphonia, and a Condition Resembling Chorea, Completely Relieved after an Attack of Pertussis.—Dr. A. Woolsey, Nebraska City, Na., reports, in the July No. (1874), of the *Nashville Journal of Medicine and Surgery*, the following interesting and remarkable case: A little boy about six years old, a son of Dr. J. C. Campbell, of this city, had diphtheria in a severe form; and for some time the chance for his recovery was regarded as doubtful. He was treated by his father. The treatment adopted and relied on was tinct. ferri muriat., with quinine constitutionally, with a solution cupri sulph. as a local means. After some time an improvement was manifest, and the little boy slowly improved, until he was able to get up and go around. In the meantime it was discovered that there was decided strabismus, involving both eyes, and he could not speak above a whisper.

It was hoped that when a more perfect convalescence was had, that these conditions would improve, but when the little boy was so far improved as to walk to any place about the house, it was found that the erratic action of the muscles was such that he could not go direct to any place, but would zigzag, in spite of of any determination of the will. And this condition, with the strabismus and loss of voice, continued after there was sufficient strength to justify the opinion that his recovery from the attack of diphtheria was assured. But it was feared that the disabilities attending him were likely to remain permanent, as there was no evidence of improvement.

About this time, some two or three weeks after the little boy was considered well, he was taken with pertussis, with which he suffered severely. As this condition advanced, it was observed that the eyes were getting straight, his voice becoming more natural, and his gait, in walking, improving. All the abnormal conditions continued to improve as the disease advanced. When the recovery from the whooping cough was complete, all the disabilities mentioned were gone, and the boy has been entirely well ever since, now some six years.

Query.—Did the pathological condition induced by the attack of pertussis have any influence in correcting the disabilities mentioned?

Gurjun Oil in Skin Diseases.—At a late meeting of the Medical Society of London, Prof. Erasmus Wilson showed some of this new remedy, and stated that this material, which was also called “wood oil,” was an oleo-resin, obtained from several species of the *Dipterocarpus*, an immense tree growing on the Malayan coast of the Bay of Bengal, where it was so common as to be used instead of paint for houses and ships.

About twenty years ago this oil was introduced into England as a substitute for copaiba balsam, and was reported to have the same medicinal properties. Opinion was, however, divided on this point, and the gurjun oil did not succeed in securing a place in the Pharmacopœia. In March, 1873, Dr. Dougall, of the Indian Medical Service, took charge of the convict establishment of the Andaman Islands, when he found twenty-four of the prisoners suffering from leprosy. He hit upon the idea of trying the gurjun oil, both as an internal and external remedy, and determined upon giving it a six months’ trial. He closed the experiment in November, by a report, which was kindly placed in Mr. Wilson’s hands by Sir Ranald Martin, and used in his lectures before the College of Surgeons.

Dr. Dougall’s method was to have the patients washed thoroughly in a neighboring stream, using dry earth instead of soap. They were then made to rub themselves for two hours with a liniment composed of gurjun oil, and lime-water, one part to three, and to swallow ʒ ij. of the balsam, also combined with lime-water. After this they had their breakfast, and were set to any work they were capable of doing. In the evening the same process was repeated, except the washing. The effects of this treatment, at the end of six months, were marvellous. Neuralgic pains were allayed, sensibility was restored to the anæsthetic skin, tubercles subsided, and ulcers healed. Dr. Dougall was astonished at the energy of these formerly helpless ones.

Mr. Erasmus Wilson remarked that he had used a liniment composed of equal parts of the gurjun oil and lime-water, in cases of painful eczema, in lupus, and in cancer, with very encouraging results, and stated that Mr. Hancock had applied it in a case of cancer of the skin, with the effect of dispersing

tubercles, and healing ulcerations; but its most useful property was that of relieving pain. A lady in constant pain from cancer of the integument, who had been unable to sleep without narcotics, for weeks, was relieved of all suffering, and enabled to sleep, by means of this liniment.

Mr. Wilson suggested that this very simple remedy deserved a trial at the hands of the profession, and believed that it would be found a valuable agent of cure in many affections where the skin was painfully attacked.—*Druggist Cir. and Gaz.* July 1874.

Case of Ascites in Chronic Bright's Diseases, Treated by the Constant Galvanic Current with Relief.—Dr. H. J. Pratt, Denver, in the *Third Annual Transactions, Colorado Medical Society*, reports the following case:

Boy, age 3 years, suffering with general dropsy. His face and limbs were puffed, and his abdomen and scrotum enormously distended; the latter resembling a translucent bladder, which reached almost to the knees. The urine contained albumen, and casts of a character which indicated the chronic character of the disease. According to parents' account, the boy, when I first saw him, had already been ill six months.

Other means of relief failing, and the symptoms becoming urgent, the scrotum was punctured in several places, and the abdomen tapped, by Dr. E. C. Gehrung and myself. A large amount of colorless serum was withdrawn from the larger cavity and the patient temporarily relieved. The drain of serum from the scrotum continued several weeks, being kept up by continual punctures, with the needle of a subcutaneous syringe. The internal treatment was tannin, milk diet, iron, &c.

Subsequently the child was three times tapped, and after each time the abdomen refilled more rapidly than before, until three days only elapsed between the operations. The patient at this time was in a typhoidal condition, with fever; and moreover, at the last tapping, the withdrawn serum was slightly turbid with pus. Yet the only thing to anticipate, if the child lived, was the almost immediate repetition of the paracentesis, which in the present condition, would probably terminate the case at once.

Remembering the known effects of the constant galvanic current in causing absorption of certain serous effusions, as in synovitis of the knee joint, it seemed worth while to try such treatment in this case; although I could find on this subject no direct statements, otherwise than that the employment of electricity ought, on theoretical grounds, to be of advantage in ascites. Objection could be made that the origin of all the evil lay in the kidneys, and remained there untouched—dropsy being only a symptom. This is true. Chronic Bright's Disease cannot, perhaps, be cured; but by treating and subduing the symptoms, which from time to time arise like crises, it may be made to endure even fifteen or twenty years.

The galvanic current was applied during ten minutes each day, commencing with eight cells, gradually increasing the number to twelve—the sponges being placed on the two sides of the abdomen, or on the front and back. The albumen in the urine became diminished in amount, and the formation of dropsical effusion in the body generally was so held in check that three weeks elapsed before the abdomen became again refilled. Meanwhile the child had gained greatly in force, and was altogether in a better condition.

Paracentesis was now performed for the last time. The serum, which at the previous operation had been turbid with pus, was now clear and limpid. The usual treatment with galvanism was continued, at first each day, and later three times weekly—substituting in the end the induced current for the constant, which was applied through the hand, not only to the abdomen, but over the entire trunk and limbs, with reference rather to its tonic effects, the muscles being thoroughly kneaded.

A month passed, during which the abdomen and limbs daily became more nearly of a normal size, until the patient was discharged relieved; I do not say well, because, although he could run about and walk down town, yet the urine still contained, in diminished amount, albumen and hyaline casts. The disease was in a latent condition, and might remain thus latent many years.

Formation of True Bone in the Penis.—J. von Lenhossek, of Pest, contributes to Virchow's *Archives*, (Vol. 60, I, April, 1874), the following interesting report which we take from the *Detroit Review of Medicine and Pharmacy*, June, 1874:

The occurrence of *true ossification* in the penis has not been proved till now; the doctor's case is, therefore, very interesting, the more so, as not simple bony plates, but a larger piece of bone, besides a cartilaginous body, were found *post-mortem* in a corpse, of which he only learned that the individual died from typhus, æt. 42. Both the cartilaginous and the bony formations were situated in the cavernous bodies. There was a dorsal bone, with a channel for the dorsal vessels, and three ventral bones, with a channel for the urethra. They originated from the middle fibrous septum of the cavernous bodies. Their color was yellowish. The microscopic examination revealed three different layers in the bony substance. The external layer consisted of connective tissue and some elastic fibres. The middle layer was composed of the same elements, containing spindle-shaped cells. The inner layer was characterized by the *Haversian canals*, about which were grouped, in concentric lines, the bony canals, connecting with the larger cavities of the bone. The cartilaginous body originated, likewise, from the middle septum, had a white color, and consisted of connective tissue and many elastic fibres. As the place of the erectile tissue was partly taken by the new formations, erections, of course, were very much interfered with. At last, the doctor states, that Prof. von Siegmund observed bony bodies in the penis, but only in life. In nearly all these cases the patients were, or had been, syphilitic. The seat of these formations was also the cavernous bodies of the penis. The professor considered them as complete ossifications of the lymph vessels.

Poison-Oak Poisoning.—Dr. S. P. Crawford, Stockton, Cal., incidentally remarks, in an article on Erysipelas in the May No. (1874) of the *Nashville Jour. of Med. and Surg.*, that in the treatment of that species of erysipelatos inflammation produced from poison oak (*Rhus Toxicodendron*), he has lately adopted the general and local use of muriated tincture of iron with very satisfactory results.

Proceedings of Societies.

RICHMOND ACADEMY OF MEDICINE.

May 7th.—Dr. O. Fairfax exhibited a specimen of

Bloody Urine Voided by a Child Three Years Old, who was also the subject of diphtheria. The Doctor first saw the child on the 2d inst., when the diphtheritic deposit on the fauces, &c., was very slight and limited. On the 5th inst., hæmaturia began, and also vomiting and purging. He soon became somnolent, but could be aroused until a few hours of his death, which occurred yesterday. At no time was there marked fever, and malarial influences were not suspected. A general supportive treatment was observed throughout.

Dr. J. S. Wellford gave the history of

A Family Poisoned, Probably by Custard.—He stated that several members of the family, after partaking of dinner, were very suddenly taken with violent vomiting and diarrhœa, accompanied, in some of them, with considerable cramping pains in the legs and arms. The passages were first fæcal, but afterwards became serous in character. One individual had, also, two large, copious evacuations from the bowels, which were very nearly half blood, and which rendered him cold and pulseless to the elbows. They were treated by diluents, sinapisms, and afterwards by opiates and astringents. With some, stimulants were also required. All of them recovered, although one, who had had the hemorrhages was confined for several days.

The family consisted of six adults (four males, two females), one boy, aged about five, and two gentlemen visitors. Of these, all but one lady and the boy were affected. Moreover, three servants—the cook and her two sons, adult men—were very ill at the same time.

As all who ate the boiled custard were affected, while the only two—a married daughter and her little son—who did not partake of that article, escaped, there was no reasonable doubt but that it was the cause of the accident, although there was no reason to suspect any one of having put any deleterious sub-

stance in it. Dr. W. H. Taylor, the chemist, was requested to analyze it. Upon testing it for arsenic, corrosive sublimate and tartar emetic, as well as for lead and zinc, he could not detect the slightest trace of any metallic substance whatever. Some of the custard was also given to a cat, without producing any marked symptoms. It was made by the two ladies of the family, so that no suspicion could attach to any of the servants, who were, moreover, old family servants, and had been raised on the premises. The materials of which the custard was compounded were the same as those furnished to several of the neighboring families, one of whom also had custard, but which produced no untoward effects. It had been prepared on Saturday, and eaten on the succeeding day. While the symptoms more nearly resembled arsenical poisoning than anything else, still, had there been only one or two cases, it might have been readily considered cholera morbus.

Dr. W. mentioned the case as one of very great embarrassment to himself, as he was unable to explain it by any satisfactory hypothesis, and desired to know whether any of the gentlemen present had had a similar experience.

In reply to a question, he stated that the custard was flavored with essence of lemon, which was found to be genuine. No vanilla was used.

Dr. F. B. Watkins remembered having heard authentically some years ago, of fifty or more persons who were poisoned by eating frozen custard seasoned with vanilla. He never permits the flavoring to be used in his family.

Dr. J. B. McCaw remarked that such cases as had been reported by Dr. Wellford were not infrequent. Shellfish, cheese, custard, &c., may produce similar symptoms, either because of certain peculiarities in some people at the time of eating, or in the articles mentioned themselves. It is probable that a fermentative action takes place in certain albuminoid substances, which, being taken into the stomach by a catalytic action, produce such disturbance in the alimentary canal as to give rise to cholera morbus, &c. When a boy, he was made so sick by eating custard that he had never indulged in it since.

May 21st.—Dr. L. S. Joynes, after reading the monthly re-

port of the Committee on Public Health, which contained notice of the unusually large number of cases of malarial fever, recommended the use of

Sulphate of Cinchonidia as a substitute for the sulphate of quinia—its chief advantages being cheapness and its failure to cause the distressing head symptoms which nearly always follow the prolonged use of quinia.

Dr. O. Fairfax spoke highly of

Cincho-Quinine in the same class of cases, and as possessing virtues similar, if not superior to those ascribed to Cinchonidia.

Cottage Plan in the Treatment of Diseases—the regular question for the evening being called—Dr. J. B. McCaw stated that his experience with detached cottages or shed buildings for hospitals had been altogether favorable. He thought the principle especially applicable to hospitals for the insane, and to our present needs and means for increasing accommodations for this unfortunate class in our State—the cost of constructing such buildings being small, and the increased advantages to patients being greatly in favor of the “cottage plan.” He thought it not at all improbable that at no distant day large granite and brick hospital buildings would be entirely abolished, as it is found that the most costly of these not unfrequently become nurseries for the zymotic diseases.

Further remarks on the subject, confirmatory of what had been said, were made by other members.

June 4th.—Dr. J. N. Upshur read the report of a case of

Malarial Hæmaturia, (published in our last issue).

Dr. Wellford remarked that he had read in the Proceedings of the French Academy that the disease was endemic in Senegal.

Dr. Joynes said he had been informed by Dr. Edwards that, at the recent session of the N. C. State Medical Society, Dr. W. A. B. Norcum, the retiring President, read a paper on this subject, which was considered a valuable contribution. Dr. J. stated that he himself had seen a case some three years ago similar to the one reported by Dr. Upshur, which he believed to be one of the so called malarial hæmaturia. He believed the disease to be a new one to this country.

After transacting business, relating to ethics, Dr. Joynes read

a paper on the *Origin of the Art of Midwifery*, which was so interesting that we hope to be able to give it to our readers in the next issue.

Among other remarks made, suggested by the paper, Dr. F. B. Watkins stated that he knew a negro woman, who absented herself for a very short while from her companions, and gave birth in some bushes. In a short time, she walked back to the place where the hands on the farm were at work, and would have immediately gone to work herself had she been permitted to do so.

Dr. J. D. Moncure knew of a negro woman who, when scissors were lacking, bit off the umbilical cord herself.

June 18th.—Dr. L. S. Joynes presented the *Report of the Committee on Health of the City*. This report showed an unusual healthfulness during the past month.

Among cases of special interest reported was one of *Phlegmasia Dolens Occurring in the Fourth Month of Pregnancy*; and two of *Metastasis of Acute Rheumatism to the Cerebral Membranes*. In one of these, there was a sudden cessation of swelling and pain in the joints, with the equally sudden development of fierce delirium and very high fever, violent muscular contractions occurred, apparently without pain. "After 17 days continuance, this state of things terminated in recovery. The leading remedy employed was (Fleming's) tinct. rad. aconit., in 5 drop doses. The patient (a lady) took a drachm of this potent agent every 24 hours for eighteen days."

Dr. Hunter McGuire reported a case recently under his charge, of *Metastasis of Mumps to the Testicles and Brain*. The delirium was like that of mania â potu. Treatment, leeching. Recovery. He had not before met with a case of metastasis to the brain.

Dr. L. B. Edwards some time since had a case, with Dr. W. W. Parker, of *Mumps with Sudden Metastasis to the Brain* in an infant four months old. The metastasis was marked by disappearance of parotiditis and the simultaneous appearance of epileptiform convulsions, more marked on one side of the body, with dilatation of the pupil on the opposite side. Death on the ninth day. Principal agents of treatment, cold applications to

the head, warmth to the extremities, and bromide of potassium.

Dr. Joynes had seen recorded in a medical journal two cases exactly corresponding to the one mentioned by Dr. McGuire.

A member who had seen in the *Practitioner*

Oxide of Zinc highly recommended as a remedy in cholera infantum, asked for the experience of any member who had used it in this class of cases.

Dr. McGuire had used it of late in perhaps a dozen cases, with very satisfactory results. He thinks the agent acts as a mild astringent, tonic and antispasmodic, and to the last mentioned property he ascribes most of its efficacy in the diarrhœas of children due to dentition—since they depend to so great a degree upon nervous irritation. Mixed in a little sweetened water, it has the appearance of milk, and is in no wise disagreeable. He had, moreover, obtained good results from it, combined with hyoscyamus, in night sweats.

Dr. F. B. Watkins reported a case of

Poisoning by Chloral.—A man who had been taking chloral freely the preceding day, took during the next day probably 150 grains or more at one dose. The Doctor was hurriedly sent for—found the patient insensible, with livid face, pulse almost gone, and respirations very slow. Artificial respiration (by breathing into the mouth of the patient) was at once instituted, and an emetic of sulphate of zinc and ipecac given, which acted promptly. In 20 minutes the man was sitting up, and on the following morning he walked to the Doctor's office.

Dr. Edwards detailed the results of treatment by the hypodermic use of aqua ammoniæ in cases of nervous shock, &c. (See July No., pg. 225), which plan he would adopt, had he a case similar to the one described. He also called attention to the value of electricity in cases of narcotic poisoning, as detailed by Dr. Caldwell (Baltimore) and others.

[A synopsis of the several recent reports of the *Health Committee* (Dr. L. S. Joynes, Chairman) has been prepared, but is crowded out of this issue.]

Book Notices. &c.

Principles of Mental Physiology, with their Applications to the Training and Discipline of the Mind, and the Study of its Morbid Conditions. By WILLIAM B. CARPENTER, M.D., LL.D., F.R.S., etc., pp. xxi—737. 12 mo. Cloth. Price \$3. (For sale by West, Johnston & Co., Richmond.)

This Treatise is "simply designed to supplement existing systems of Physiology and Metaphysics, by dealing with a group of subjects which, occupying the border ground between the two, have been almost entirely neglected in both." It is "an expansion of the outline of Physiology, contained in the fourth and fifth editions of the author's '*Principles of Human Physiology*' (1852 and 1855), but omitted from the later editions to make room for new matter more strictly physiological."

Dr. Carpenter has seen no reason to make any important change in his psychological views since they were first published; on the contrary, "the experience and reflection of twenty years" have confirmed them.

The two fundamental doctrines upheld in the work before us are (1) "the dependence of the automatic activity of the mind upon conditions which bring it within the *nexus* of Physical Causation; and (2) the existence of an independent Power controlling and directing that activity, which we call the Will."

The work is divided into two books—one on *General Physiology*, occupying 428 pages; the other on *Special Physiology*.

After a hasty examination of the volume, which circumstances compel at this time, we are satisfied that the work is one of great interest and instruction, whether reference be had to that which is purely psychical, or that which belongs more strictly to physiology. In fact, the individual character of the author himself, who has for so long a period of years been authority in questions of Physiology, will warrant this assertion. There is, moreover, a peculiar aptness in the illustrations used to simplify the "Principles" laid down, which makes the work a most entertaining one.

We would call attention of physicians especially to the "re-

markable results of the experimental researches which have recently been prosecuted by Dr. Ferrier into the functions of different parts of the Brain," which are detailed in an appendix, taken from *Medical Reports of the West Riding Lunatic Asylum*, vol. III., 1873.

These experiments consisted in applying faradisation to different parts of the cortical substance of the cerebrum, and other ganglionic centres forming part of the brain of animals, previously anaesthetized. As a rule, the current was not stronger than could be borne without much discomfort on the tip of the tongue; but considerable variations in the tensions were necessary to produce the same effects in different animals, and at different times in the same animal.

Faradisation of the cerebral cortical substance produces immediately an intense hyperæmia. The application of the two electrodes to points of the cerebral surface at some distance from each other excites either partial or general convulsion—the most severe fits being induced when the electrodes are applied at the greatest distance. Not only was there a distinct interval between the application of the electrodes and the first convulsive movement, but there was occasionally "a distinct interval of time *after the withdrawal of the stimulation* before the condition of the grey matter had reached the pitch of tension requisite for an explosive discharge."

"The general characteristic of the movements called forth by the local stimulation of the cortical substance of the cerebrum is that they are such as involve the co-ordination of several distinct muscular actions; and resemble those which, in an animal possessed of its senses, we would regard as expressive of ideas and emotions."

Among some of the results of experiments on animals, we may mention that when either of the *corpora striata* was excited, immediate and rigid *pleurosthotonos* occurred on the opposite side of the body. Excitation of the anterior tubercles of the *Corpora Quadrigemina* produced violent *opisthotonos*; the jaws were clenched and the pupils dilated.

Experiments upon the *cerebellum* have led Dr. Ferrier to the conclusion that it is the ganglionic centre of the motor nerves of

the eye—a fact which future observers may turn to service in their studies of the pathology of nystagmus, locomotor ataxy, &c.

Yet, these statements of Dr. Ferrier have been most vigorously assailed. But notwithstanding the more recent experiments and strictures of Carville and Duret, Dupuy, Bartholow and others, as bearing upon these researches, we are by no means satisfied that the observations of Ferrier should go for nought. On the contrary, in the chain of argument of his reviewers there are wanting important links to satisfy us of the correctness of *their* deductions. In their haste to arrive at conclusions, they have, we are afraid, overleaped some obstacles to reach their aim which have not been removed from the path of true progress. At all events, we are forced to think the subject still *sub judice*.

The well known publishers have shown their usual good taste in the style in which they present the book, which is free of any marked typographical errors.

A Dictionary of Medical Science, containing a Concise Explanation of the Various Subjects and Terms of Anatomy, Physiology, Pathology, Hygiene, Therapeutics, Medical Chemistry, Pharmacology, Pharmacy, Surgery, Obstetrics, etc., etc. A New Edition. Enlarged and thoroughly Revised. By Richard J. Dunglison, M.D. Philadelphia: Henry C. Lea, 1874. pp. 1131. 8 vo. Sheep \$7.50. Cloth \$6.50. (For sale by West, Johnston & Co., Richmond.)

We scarcely know what to say in reference to this edition, except that it “includes more than *six thousand* subjects and terms not embraced in the last; and although the capacity of the page has been enlarged, the volume has been increased by one hundred pages, so that it contains, in fact, additional matter equivalent to at least one hundred and sixty pages of the last edition.”

We do not suppose that any practitioner of medicine in the present day, who attempts to keep pace with the advance of medical science, would any more think of being without a medical dictionary than the lecturer on English literature would think of being without his unabridged Webster or Worcester. Nor should any college medical student be without his medical dictionary.

Since there is no other Medical Dictionary published in America at all comparable to the book under notice, this work is simply invaluable and indispensable. The revision has been complete, both as regards the editorial and publisher's departments respectively.

Health and Education. By REV. CHAS. KINGSLEY, F. L. S., F. G. S., Canon of Westminster. New York: D. Appleton & Co., 1874. pp 411—12 mo. cloth—Price \$2. (For sale by West, Johnston & Co., Richmond.)

The title of this new book scarcely gives one a correct idea of its contents. It is not a continuous treatise on "Health and Education," but a volume of lectures and addresses, in most of which something pertinent and good is well said on the subject. The first three or four lectures treat almost exclusively of Health and Sanitary laws; the remaining lectures and addresses (fifteen in all), are more of a literary character with side views bearing on the subject of "Health and Education."

What we have to say is that the book is a capital one. The style is good—in many of the lectures really elegant and fascinating.

A pleasing variety of topics is passed in review, and one rises from the perusal, edified and instructed, and with a feeling of attachment for the earnest, truth loving, versatile and philanthropic author. The book has its special value to physicians, as well as its interest for the general reader. In many passages scattered through the volume we have been struck with the author's richness of thought, splendor of diction, refinement of sentiment, and breadth of culture.

Physicians will do well to recommend this new book to their non-professional friends.

The mechanical execution, paper, &c., are unexceptionable.

Transactions of the Colorado Territorial Medical Society, Third Annual Session, Denver, October 1 and 2, 1873. *President,* G. S. McMurtrie, M. D., Idaho. *Secretary,* H. J. Pratt, M. D., Denver. Pamphlet, pp. 56.

Of business items, we notice that membership of a local society was made essential for membership in the Territorial organiza-

tion. We fear this ruling may prevent some properly qualified practitioners from joining either. The conditions for membership in a voluntary organization should not be of a compulsory character beyond moral excellence and scientific and professional culture.

The address of the retiring President, Dr. W. F. McClelland, Denver, of course has something to say about quacks and the code of ethics, but presents no new suggestions. With those "lately arrived from the East," we are disposed to think too much stress is laid upon the importance of the code, which, being a human instrument, is faulty in *many* particulars. After speaking of society matters, Dr. McC. states as his opinion that "Colorado has fewer diseases indigenous to itself than any State or Territory in the Union." He regards the climate as especially adapted to the treatment of asthma, and says that "that peculiar form which appears about August 15th, called hay fever, or hay asthma, would be relieved by a residence in Colorado."

The *Report on Surgery*, Dr. H. K. Steele, Denver, at the time it was presented, was fully abreast with similar reports on the subject. In referring to "Esmarch's Bloodless Operation," a note accords to Drs. Sanders and Hawthorn the credit of having acted, in Georgia, during the late war, upon the idea of compressing the main artery, and then tightly bandaging the limb from its extremity to the wound. The peculiar adaptability of the Territorial climate to surgical operations is dwelt upon, and some remarkable statements are made regarding its influence against suppuration.

The *Report of Materia Medica of Colorado*, compiled by Dr. J. Elsner, Denver, mentions poison-oak, sage, saffron, mountain mint, milk weed, butterfly weed, and sheep laurel as among indigenous plants. Regarding the treatment of the erysipelatous eruption on the skin induced by contact with poison-oak (rhus toxicodendron), Dr. E. states that he has tried all the remedies usually recommended without obtaining relief (among them muriate tincture of iron, which we elsewhere mention in this number as having been used with advantage); but he has not failed as yet (six or eight cases) in abating the effects by "a light cooling regimen with saline purgatives," while he applies

with cotton batting, all over the body, if necessary, the compound tincture of benzoin (U. S. P.) four or five times a day.

Dr. J. J. Pollock, Georgetown, gives a most interesting and suggestive *Report on Ozone*. Want of space forbids a synopsis other than to say that the presence of ozone is injurious to health, and that there are sections of Colorado where it seems to be super-abundant in the atmosphere, due to meteorological causes which are stated.

The *Report on Surgical Diseases of Women*, and the papers entitled *What Class of Consumptives ought to be sent to this Country*, and *The Treatment of Consumption* are not worth the space necessary for analyses—a fact we regret the more because they are all by the same author. We may, however, say that the author thinks he has been of service in suggesting a new anteversion pessary—a modification of Hodge's (retroversion) closed lever. It consists in bending the lesser curve of Hodge's pessary "toward the greater, until the distance between the two amounts to only $1\frac{1}{4}$ – $1\frac{1}{2}$ inches"—including the thickness of the hard rubber. He claims as advantages, the elastic support it affords, absence of mechanism (?), inflexibility, cheapness, and accessibility—the last four of which advantages, at least, are wonderful!

The *Report on Catarrh*, by Dr. M. J. Davis, Golden, considers the relation of this affection to the climate of Colorado, and is based principally upon individual observation. The reporter presents statistics of 42 consecutive cases of catarrh, analyses of which seem "to confirm the general impression that mountainous regions and valleys * * * are not favorable to the prevention nor to the cure of the disease." After discussing the question why this is so in general, the writer remarks that the "principal exciting causes of catarrh in this region are the marked nocturnal, and the frequent marked diurnal reduction of temperature, causing an arrest of the eliminative function of the skin; * * * and the harsh winds, acting as local irritants."

Dr. W. R. Whitehead (late of N. Y., but who has removed to Denver as a health resort) made some remarks on the *Management of the Inter-maxillary bone in the Operation for Double Hair Lip*—consisting principally, after the requisite cutting

operation, in fixing the inter-maxillary bone with the superior maxillæ by means of silver wire sutures, for which suggestion Dr. W. thinks credit properly belongs to Dr. J. Marion Sims instead of to certain French authorities who have claimed it. The remarks are quite instructive, and are illustrated by the details of three cases, in two of which, modifications of Dr. Sims operation were demanded.

Dr. Whitehead details a *Case of Simulate Fissure of the Anus, caused by a piece of Eggshell* [about $1\frac{1}{4}$ inch in width which the patient had unconsciously swallowed a few days before] *in the Rectum, and lodged against the Sphincter Ani Muscle.*

Dr. Whitehead also details a *Case of Supra-Pubic Cystotomy for Retention of Urine, due to Hypertrophic Enlargement of the Prostate*, in which an artificial exstrophy was attempted to be produced. The patient did well for four or five days when he was taken with an incontrollable diarrhœa, during a prevalence of this complaint, and died fourteen days after the operation; there were symptoms of septicæmia, but not until the 12th day.

Dr. S. Cole, Denver, read a paper on the *Parallelism between the Eye and Ear* which is more of an ornately compiled essay for the general reader than of value to the profession—no fact that is not already familiar to the physician being developed.

Dr. H. J. Pratt, Denver, communicated a *case of Ascites relieved by Electricity*, which will be found in this issue under head of *Analyses, Selections, &c.*

There are a few errors which we suppose are typographical, such as "inflammation," "congestion," &c., though these and several similar errors are several times repeated.

*A Treatise on Pharmacy * * * containing the Official and many Unofficial Formulas, etc.* By EDWARD PARRISH, Late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc. Fourth Edition, enlarged and thoroughly revised, by Thos. S. Wiegand, Graduate of the Philadelphia College of Pharmacy. With Two hundred and Eighty Illustrations. Philadelphia: Henry C. Lea. 1874. pp. xxiv—977. 8 vo. Sheep \$6.50. (For sale by West, Johnston & Co., Richmond.)

Of the same value that the Dictionary above noticed is to the physician is this book to the apothecary, and to the country phy-

sician especially who has to compound his own medicines. To all such it is invaluable.

The former editions of Parrish's Pharmacy are so well known to every respectable apothecary in America, as also to most reputable physicians, that it is not necessary to speak of the general character or scope of the work. It therefore only remains for us to say that this last edition contains pretty much all that is of value that has been developed by the laborious researches and advances made during the ten years which have elapsed since the appearance of the third edition.

The work as now presented, has been adapted to the new edition of the Pharmacopœia—both as regards the changes in the list of preparations and in the revision of the nomenclature. The new chemical notation has also been introduced; so that about 150 pages have been added to the size of the volume, notwithstanding the fact that everything that could be considered obsolete has been eliminated.

The publisher, as usual, has done his duty faithfully and well.

Editorial.

REPORT ON FRACTURES—CORRECTION.

The following letter from Prof. F. H. Hamilton, M. D., was received too late to appear under the head of *Correspondence*. We will state, however, in connection with this letter, that our reports of the Proceedings of the recent session of the American Medical Association were compiled from the reports in the Detroit papers, from special correspondence in other leading papers of the country, and in part from several private letters received from friends who were in attendance. But the reports relating to the discussion on *Fractures* (in which statements were made so completely at variance with any knowledge of our own on the subject,* or the experience of leading surgeons of

* Since writing the above, by reference to our note book we are reminded of the case of a child 4 years old, whom we attended in Lynchburg with Dr. D. A. Langhorne, of that city. The child fell down some steps, causing oblique fracture of middle of right femur. Ordinary straight splints, made of cigar box wood, were applied after reduction, and she recovered in five weeks. At the end of four months thereafter there was no limp, nor any appearance whatever of shortening, though exact measurements were not made.

this section with whom we had opportunity of conversing) were compiled strictly from the stenographic reports as published in the Detroit papers, which, it was to be presumed, would fall into the hands of the several speakers; so that if any glaring errors were printed in them, they would be at once corrected. But we have never seen such corrections; and other medical journals reporting the proceedings of the section on surgery, have given in substance reports similar to our own.

With this explanation, which we deem due to ourselves to make, we take great pleasure in publishing the subjoined letter.

NEW YORK, 43 W. 32nd st.,

July 17, 1874.

Dear Doctor: You have copied into your journal (see July No.) some remarks made by Dr. Sayre at the last meeting of the American Medical Association, which I find it necessary to correct. Dr. Sayre is reported by you as having said that "he had been *grossly* misunderstood by many; he had made remarks upon statistics prepared by Dr. Van Wagner, of the Bellevue Hospital, and they were all true. Dr. Frank Hamilton, who, until recently, would not admit that a fracture could be reduced without a shortening, made all the measurements of these cases (15) in the Bellevue Hospital. Dr. Hamilton said if seven successive cases would be presented, he would agree to give up his opposition to the theory. He found the cases and surrendered."

Dr. Sayre has not intended to misrepresent my views, but, through some inadvertence, he has done so. Probably some one has given him incorrect information.

First—I never entertained such opinions as are attributed to me; and they cannot be found expressed in any of my published writings. In the course of my life I have made a good many bones unite without shortening, including a very respectable number of femurs.

Second—I have not measured all of the cases contained in Dr. Van Wagner's statistics (115); indeed, not having seen them, it is impossible for me to say whether I have measured any of them; but it is not probable that I have measured ten.

He cannot, therefore, properly refer to me as endorsing the statement as to results.

Third—Seven successive cases of fracture of the femurs, united without shortening, were never brought to my notice.

Permit me to add that the August number of the *New York Medical Journal* will contain a full account of my recent experience in the treatment of fractures of the thigh at Bellevue and in other New York institutions.

Very truly yours, FRANK H. HAMILTON.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF NORTH CAROLINA.

We have regretted that the great pressure upon our columns have prevented until this date sufficient reference to this Board, and to the proceedings of its recent session in May last.

This body is becoming to be recognized as an absolute necessity in the State, as is manifested by the growing interest in its deliberations, and the constantly increasing proficiency of applicants for license. It was created by legislative enactment April 1869, which requires all persons engaging in the practice of medicine in the State to have the license of the Board in order to collect their fees by law.

We may also remark that to obtain the proper license, as we have been informed by some who have passed their examinations, is not merely a question of form; but the Board very properly have adopted a high standard, so that even some who obtain medical diplomas, as they are now bestowed by certain colleges (be it said to their shame), are yearly rejected. And it is the laudable purpose of the Board gradually to elevate the standard of requirements, so that in a short while the title of *Doctor of Medicine*, in that State at least, will come to mean something more than "sounding brass."

The North Carolina Board meets annually at the time and place of the meeting of the State Medical Society. The following are the members of the Board, who, as will be seen at a glance, are among the most eminent of the profession in North Carolina, and some of whom, at least, are favorably known beyond State or sectional boundaries: Drs. C. J. O'Hagan, Presi-

dent; Chas. Duffy, Jr. (*Newberne*), Secretary and Treasurer [to whom all correspondence relative to the Board should be addressed]; W. A. B. Norcum; C. Tate Murphy; J. W. Jones; Geo. A. Foote; and R. L. Payne.

At the late meeting of the Board at Charlotte, May 19th, 1874, the following physicians, having passed satisfactory examinations, were granted license: Drs. E. S. Foster, Louisburg; J. B. Hall and H. Turner Bass, Scotland Neck; Robert H. Towles and Hillory M. Wilder, Raleigh; Thos. B. Moore, Charlotte; and Joseph A. Ardrey, Pineville.

VIRGINIA STATE BOARD OF HEALTH.

At a meeting of the State Board of Health, held on the 16th of July, 1874, the following preamble and resolutions, offered by Dr. Joynes, were adopted:

WHEREAS, The bill submitted to the General Assembly at its last session, making an appropriation for the purposes of the State Board of Health, received the assent of a decided majority of the voting members of both houses, and only failed for want of a constitutional majority in the House of Delegates, in a vote taken when nearly one-half of the members were absent:

And whereas, There is reason to hope that a renewed application to the Legislature under more favorable circumstances will result in the passage of the same or of a similar bill:

Resolved, That the members of the Board deem it expedient, under the circumstances, to maintain the organization of the Board, and to renew the application to the General Assembly for aid, at the earliest practicable period after the commencement of the next session.

Resolved, That the President and Secretary be authorized to prepare and submit to the General Assembly such report or communication as they may deem expedient.

J. GRATTAN CABELL, *Pres. pro tem.*

L. S. JOYNES, *Secretary.*

JOURNALISTIC NOTES.

One of the characteristics of the medical literature of this year is the number of medical journals which have appeared for the first time. What their individual fates will be, of course, we cannot predict. But this we do say, that judging from the tone and merit of those we have seen, *each ought* to be well re-

ceived, encouraged and sustained by the profession in whose behalf they were begun.

The Chicago Journal of Nervous and Mental Diseases, edited by Prof. J. S. Jewell, M.D., assisted by H. M. Bannister, M.D., was the first to appear. It commenced in January 1874, and is issued quarterly, each number containing from 100 to 150 octavo pages beautifully printed on excellent paper. Subscription, \$4 *per annum*; single copy \$1. We have seen only the first two numbers—the July number not having been received as yet; but the two copies received are excellent. We have not the space at our command to detail the contents of these numbers; but we may remark that the lectures on the “Pathology of the Vaso-nervous system” by the senior editor, running through both numbers (to be continued) are in themselves worth the annual subscription price, in that they give one of the clearest and most succinct accounts of the phenomena observed that has fallen under our eye. Besides these lectures, we have been particularly impressed by the value of the Review and Book notice department.

Archives of Electrology and Neurology, by George M. Beard, A.M., M.D., New York. This is a semi-annual, each number to contain from 125 to 175 pages, well printed with large clear type. Subscription, \$2.50 *per annum*; single copy \$1.50. The first number appeared May, 1874, and it is capital. The second number will appear during the early autumn; and from the known character of the editor, and the announcement he makes, we venture nothing in predicting that it will be equal in value and interest to the first. Not to be invidious where all the papers are so valuable and practical, we mention especially the paper of Dr. Robert Newman, (New York) on “Electrolysis in the Treatment of Strictures of the Urethra,” (the receipt of which, by the by, in pamphlet form, from the author, we hereby acknowledge; as also the paper, by the editor, reprinted from the Archives, on a “New Method of Treating Malignant Tumors by Electrolyzing the Base.”) Dr. Newman’s paper is in itself a complete treatise on the subject on which he writes. Among the most interesting and instructive cases published in this number is one recorded by Prof. Jas. L. Cabell, M.D., (Univ. of Va.)

—that of a young lady who came under his charge in 1870, with “Hysterical Hemiplegia presenting Inter-current Phenomena of Extreme Gravity—Gradual and Progressive Improvement, culminating in Complete Cure under General and Localized Faradization.” Want of space forbids further mention, except to say that since making the analysis elsewhere in this issue of the *Monthly* of Dr. Beard’s suggestion regarding the “Phosphoric Emulsion,” we have had other opportunities of prescribing it with the happiest results, a point of interest to us since the use of former apparently similar formulas have not acted as we desired.

The Missouri Clinical Record, published in St. Louis, edited by W. A. Hardaway, M.D., assisted by A. B. Shaw, M.D., and Chas. A. Todd, M.D., a 16 page (large size) monthly journal, begun April 1874. We have received only the June and July numbers; but they are fine specimens of a live journal—containing valuable articles from prominent authors, and further enriched by recent practical synopses and extracts. Subscription, \$3 per annum. It deserves eminent success.

The American Medical Monthly, published every Saturday in Louisville, Ky., E. S. Gaillard, M.D., Editor and Proprietor, commenced July 4, 1874. Terms. \$2 annually in advance. We have on our table only the first two issues. Each of these contains 12 pages (large size) of interesting reading matter. This is the first effort made in the South to supply the profession with a weekly journal of medicine, and it should be handsomely sustained by liberal contributions of pen and purse, so long as it possesses the merit and value belonging to the two numbers we have seen. The editor is too well known to need a more formal introduction, having already been editor “for nine years” of a journal that has attained a remarkable success.

The Vermont Medical Journal, it was announced sometime ago, would be begun in April or May, but we have not seen a copy. Its home office is Burlington.

The Supplement to the Medical News and Library (Monthly), is the changed form of the Half Yearly Abstract, so long and favorably known, published by Henry C. Lea, Philadelphia. Each Monthly Supplement is to contain 48 large octavo pages,

and is mailed free of postage, with the *Medical News and Library* for \$3.50 per annum. The value of the Supplement will be appreciated by all who have seen the "Abstract."

A new *Journal* of nervous diseases, &c., to be edited by Dr. Wm. A. Hammond, New York, was announced to begin in July; but as we have not received a copy in exchange for the full file of the *Monthly* some time ago mailed, we know nothing as yet of its existence or value. It will be remembered that Dr. Hammond was the editor of the "Psychological Journal," which was discontinued a year and a half ago.

The *Virginia Medical Monthly* has met with a very unexpected degree of favor from the profession. The editor returns his thanks to the journals which have noticed his new enterprise—invariably with remarks of commendation. When he shall have published "for nine years instead of nine weeks," he hopes that he may still merit their respect; and if by that time the growing success of the journal will not warrant him in claiming it as the "largest medical Monthly in America," he trusts that the effect of the labor bestowed upon its development will not be to blunt his sense of justice toward others, nor so to impair his *memory* as to forget to give "honor to whom honor is due."

The attention of subscribers and friends of the *Monthly* is respectfully invited to the important notice, relative to proposed changes, which will be found in the advertising department in the front portion of this issue.

ACKNOWLEDGEMENTS.

To *Dr. Joseph B. Whitehead*, Norfolk, Va., we desire to make this acknowledgement of his generous favor in furnishing monthly mortuary statistics for Norfolk, from which we have compiled reports from our first issue. His term of office as Health Officer expired July 1st, 1874. To say that he has been faithful and efficient in the discharge of his duties is only to state facts of which we have the fullest assurance. We sincerely thank him for his kindness to the *Monthly*.

Dr. Herbert M. Nash has been appointed President of the new Board, and Dr. Wm. M. Wilson, Health Officer.

Norfolk being the most important of our Southern seaport cities, it should for this reason, if no other be, careful always to select its Board of Health from among the best qualified of its medical corps. We are glad to believe it has kept this fact in mind in the selection of the present Board.

Our regular monthly mortuary statistics will be continued as heretofore.

We return thanks to *Messrs. W. H. Smith & Co.*, Buffalo, N. Y. for a "Cutler's Pocket Inhaler." It consists of an open glass tube, in which is a porous substance, upon which any volatile substance may be poured and the vapor inhaled by placing one end of the tube in the mouth. Its use has become quite popular in many sections, and it possesses the advantages of simplicity, durability and portability.

AN UNWITTING ERROR.

As one of the objects of the "Association of Medical Officers of the Confederate Army and Navy" is "the cultivation of social * * * relations," we can but regard the selection of the Vice President from Louisiana as exceedingly unfortunate. To have selected one of no especial merit, while there were so many in that State of widely extended reputation, would have been unfortunate enough; but worse than this, a former Confederate was selected who has taken a recantation oath, and is now the Secretary of a Radical Club, of which Durell, Norton and Kellogg are members. It is useless to say that "social relations" can never be established between the profession of Louisiana and the Vice President elect.

But as we are quite certain, as, indeed, we have been assured, that his election was due to a total misapprehension of his "social" position, it is to be hoped that he will at once resign, and thus save the Association, at its next meeting in this city, the embarrassing necessity of making a formal explanation and apology. Let this be done, and much good may be expected from this organization.

Each Surgeon of the late Confederate Army and Navy who may wish to unite himself with the above Association, is requested to forward the amount of the first annual assessment (one dollar) to the Vice President from the State in which he may reside (see June No. of Monthly, page 174), or to the Treasurer, Dr. Edwin D. Newton, Athens, Georgia.

DEATH OF DR. FRANCIS T. STRIBLING.

The death of *Dr. Francis T. Stribling* is a great public calamity. He died at his residence in Staunton, Va., July 23rd, 1874. Every body knows his name and his history, having been for so long a time Superintendent of the Western Lunatic Asylum, located at Staunton.

He was born January 20th, 1810, and was therefore in the 65th year of his age. He was the *first* graduate in medicine at the University of Virginia. He afterwards graduated at the Medical College of Philadelphia, and then established himself as a practitioner of medicine in Staunton. He soon acquired an enviable reputation as a physician, and in 1836, when but 26 years of age, was elected a physician to the Western Lunatic Asylum. In 1840 he was elected Superintendent of the Asylum, which high and responsible position he filled with distinguished ability and success till the day of his death.

His wise, judicious, and successful management of the institution over which he presided, and whose affairs he managed so skillfully, won for him the respect and high esteem of all with whom he was brought in intercourse. It is not our purpose in this brief notice to pronounce a eulogy on Dr. Stribling; but, if space and other circumstances justified it, a finer subject for high-wrought panegyric could not be presented.

He possessed a great, original mind. He introduced his own plans of management and treatment of the insane, and led the way in bringing about a great revolution in the government of Lunatic Asylums. As such he gained a world-wide reputation, and stood forth a great public benefactor. His loss seems irreparable. Who can take the place of such a man, filling such a delicate and responsible position?

He had a great *heart* as well as a great intellect; and by his generous and noble traits of character, he bound the affections of others to him. The death of such a man—such a benefactor—such a noble philanthropist—stirs the heart of the world. Hundreds who have been the subjects of his successful treatment will pay the tribute of a tear to his memory; while all the friends of the unfortunate inmates of the Asylum will mourn his death as a calamity of unspeakable magnitude—a feeling in which every philanthropist will participate.

Virginia Mortuary Statistics for June, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Health Officers.....		Dr. J. G. Cabell.				Dr J B Whitehead				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		44	44	35	39	14	17	16	19	6	6	8	13
Number still born.....		10		10		Color not given, 4				Color not given, 6			
Ages. Ages unknown not calculated.	Under 1 year.....	41		27		Color not given, 25				Color not given, 12			
	" 3 years.....	14		8		" " " 4				" " " 1			
	" 10 ".....	2		5		" " " 3				" " " 3			
	" 20 ".....	10		3		" " " 2				" " " 1			
	" 30 ".....	10		9		" " " 3				" " " ...			
	" 50 ".....	10		9		" " " 9				" " " 8			
	" 70 ".....	10		7		" " " 8				" " " 4			
	" 80 ".....	...		2		" " " 5				" " " 3			
	" 100 ".....	...		3		" " " 6				" " " ...			
Over 100 ".....	...		1		" " " ...				" " " ...				
Most frequent Causes of Death.	Accidents, &c.....	1		2		.....		1		Color not given, 1			
	Apoplexy.....	.....		.....		.....		2		" " " ...			
	Brain, Conges., Inflamm. & Soft	4		1		4		1		" " " ...			
	Cholera Infantum.....	32		11		1		1		" " " 2			
	" Morbus.....	.....		.....		.....		.....		" " " 1			
	Congestive Chill.....	.....		.....		2		.....		" " " ...		
	Consumption.....	4		11		1		1		" " " 8			
	Convulsions.....	3		2		1		1		" " " 1			
	" Puerperal.....	1		1		.....		2		" " " ...			
	Dentition.....	1		5		.....		2		" " " ...			
	Diarrhœa & Dysentery.....	8		6		5		7		" " " 1			
	Enteritis, Entero Colitis, &c..	.....		1		2		.....		" " " 3			
	Fever, Remittent.....	.....		.....		1		.....		" " " ...		
	" Typhoid.....	5		1		.....		1		" " " ...			
	Gout.....	.....		.....		1		.....		" " " ...		
	Heart Diseases.....	2		5		.....		1		" " " 1			
	Inanition, Old Age, &c.....	7		5		4		5		" " " ...			
	Insanity.....	.....		.....		.....		.....		" " " 1			
	Meningitis, Cerebro-Spinal....	1		1		.....		.....		" " " 1			
	" Tubercular.....	2		.....		1		.....		" " " ...		
	Nephria.....	.....		.....		.....		1		" " " ...			
	Paralysis, General.....	.....		1		1		.....		" " " ...		
	Pneumonia.....	2		1		.....		.....		" " " 1			
	Pyæmia.....	.....		.....		.....		.....		" " " 1			
	Scarlatina.....	.....		.....		.....		1		" " " ...			
	Small Pox.....	.....		.....		.....		1		" " " ...			
	Trismus Nascentium.....	.....		1		.....		.....		" " " ...
	Whooping Cough.....	.....		.....		.....		1		" " " ...			
		Census taken in February, 1874.				Population is estimated.				Population is estimated.			

The case of small pox in Norfolk was imported. There is no other in the city.
The sanitary condition of each city is good.

VIRGINIA MEDICAL MONTHLY.

VOL I. RICHMOND, SEPTEMBER, 1874. No. 6.

Original Communications.

ART. I.—*The Study of Malaria.* By ALFRED G. TEBAULT, M.D., President Medical Society of Virginia, Princess Anne county, Virginia.

That contamination of the air to which the term *malaria* has been applied is chiefly recognized by its definite effects upon man; and Macculloch very justly regards human susceptibility as evidence enough of its presence. Some casual observers have indeed denied its existence, alleging, in support of this opinion, the want of satisfactory proofs of its physical properties, its being at variance with established laws which regulate chemical action in other cases, and the unaccountability on that supposition of indefinite periods of repose or inactivity. And yet these observers have sought the cause of the phenomena manifested in electric tension, magnetism, radiation of caloric, geological structure, or weight of the atmosphere; all apparently based upon the assumption of false premises, and insufficient in themselves to explain a complex resultant. Causation undoubtedly consists in unconditional sequence, and these greatly err, as Mr. Mill has stated it, when they "single out any one antecedent and designate it as the cause, assigning to the rest a subordinate place as mere conditions." Far different is the philosophic mode of inquiry, which, by calling the peccant element *malaria*, be its nature what it may, seeks to find out the causes which give it existence and potency. By this process objects of practical importance can be rendered of easier attainment. And surely to ascertain and abate, if not overcome, the

causes of that scourge which has proved more prolific of suffering and death to mankind than all the wars which have ever been waged, is worthy of the intense application of the highest intellect; and even to assist in this work, however feebly, is esteemed a duty in any one who can truly say, *Quæque ipse miserrima vidi, et quorum pars magna fui.*

Perpetually enthroned within the tropics, malaria extends its destructive ravages to undefined isothermal lines, far to the north and south of those limits. On the eastern continent it prevails, more or less, from England and Japan to Cape Colony; and on this continent from Canada southward and includes the greater portion of South America; while an immunity has been ascribed to the wet shores of Brazil and also to those of Australia.

As a general rule, it is most powerful near the level of the ocean, and diminishes in intensity as the altitude is increased and the line of perpetual congelation approached. Thus, from the coast of Mexico, in its progress inland, it is still powerful at the height of 3,280 feet; but above this it is said to diminish, and at the city of Mexico (7,445 feet) is very slight. Upon the unexceptionable testimony of Ferguson, concerning certain intertropical localities, it appears that while remittent fever prevailed at a lower level, intermittents existed on adjoining and considerably elevated heights. From these facts, and others not yet stated, the conclusion is irresistible that the dissemination of malaria, both in regard to latitude and altitude, corresponds with what is observed in the vegetable kingdom. Moreover, its geographical limits extend vastly beyond those of the yellow fever, and its domains are occasionally invaded by incursions of algid cholera—diseases that in many respects bear a strong analogy to each other.

Within the torrid zone no season is entirely exempt from its influence; but the rainy or wet is generally the most insalubrious. In Cuba and other West India Islands this season lasts from May to October, with a partial abatement of the rains in July and August. On the other hand, the sickly period in Demarara and Surinam corresponds with the dry season. Pretty constantly, however, in that zone, and the more so in dry localities, the hottest season, when moisture is entirely dissipated and vegetation checked, is the healthiest. The west coast of Africa,

as shown by the hygrometer and the excessive mouldiness of objects, is more steadily humid than the West Indies or other intertropical countries. During the continuance of this humidity, the breathing is impeded, as also evaporation from the skin and lungs, till a copious rain affords relief. At Sierra Leone, perhaps the most pernicious place along that coast next to Fernando Po, the dry season extends from November to April, and the rainy or sickly from July to October. The climate of Lower Scinde, like that of the west coast of Africa, is remarkable for its great humidity, though rain hardly ever falls for six or eight months, during which time the aqueous vapors, suspended in a cubic foot of air, is often 12.91 grains, with a temperature in the shade of 90° Fahr. and a dew point of 82°. In some places within the same zone the insalubrity is greatest just at the termination of the wet season. In the northern temperate zone the period of malaria extends from June to October. It always declines with the month of October, but a decided frost, whenever it occurs, arrests it at once. It will be seen that in the northern hemisphere the period of its activity terminates with the month of October.

Malaria requires a temperature ranging from 60° to 80° F.; at its maximum of intensity, such a temperature as obtains in this latitude in the latter part of August and in September. During the prevalence of very hot weather, its characteristic effects are much diminished; and at 32° Fahr. it entirely ceases. The dew point found most favorable to its evolution ranges between 60° and 78° Fahr., especially in a stagnant atmosphere. These facts show no direct dependence upon putrefaction for its production, for this process begins slowly at 40° and reaches its maximum of activity at 100° Fahr. Great and long-continued heat, while it is known to diminish if not entirely arrest the development of paludal fever, induces another train of effects, often of great severity, such as fever attended with cerebral excitement, visceral inflammatory complications, or great prostration and enervation. It should be borne in mind, in this connection, that the heat of the system raised to 113° Fahr. in the vertebrata, coagulates albumen, and is beyond the possibility of life.

Over the most noted and pestiferous paludal localities, the light of the sun is only partially if at all obstructed. Indeed, the shade of trees and other dense growth seems frequently to exert a preventive, or at least a qualifying agency; for with the clearing of forests from swampy grounds, increased insalubrity results, and this cannot justly be ascribed to putrefying elements or a want of the corrective influence of growing vegetations acting upon the soil. The mere covering of limited malarious foci, whenever that can be done, by shells, lime, fresh earth or other materials, abates the evil. There are facts which support the opinion that the boles and exposed roots of some trees are injurious from malarious taint to those who sleep close to them in the day time.

Some persons indicate malaria as proceeding from low, confined, dark places that are illy ventilated, such as cellars, the foundations and ground floors of tenements in decay, the holds of vessels with the hatches closed. That these are sources of disease is undoubted; but without presumption, it may be said that very little that is positive as to the existence of malaria in these instances has been adduced. Reporters speak of the emission of an overpowering and offensive odor that caused fainting on the spot, of the sudden extinguishment of candles, or at least of their burning dimly, within the mephitic air, and of subsequent adynamic fever. The bilge water of sugar vessels, when the limber boards are removed, is particularly unhealthy, and the symptoms accord with those produced by sulphuretted hydrogen or by hydro-sulphuret of ammonia from feculent matter in a state of putrefaction. While at least some light is necessary for the normal production of malaria, its dissemination appears greatest at nightfall. From these facts, therefore, and from a careful survey of localities, its propagation is favored by alternations of day and night.

Investigations of the agency of ozone and electrical conditions have yielded nothing very satisfactory, with the exception of the pleasure to be able to quote, in this connection, the remarks of Dr. J. K. Mitchell that "As substances in a negative electrical state forcibly attract moisture, we might expect to find that season the most damp and unhealthy in which the atmos-

phere maintained an electrical negative condition, and that driest and most healthful when it was electro-positive."

By concurrent testimony, the most evident habitat of malaria, wherever it prevails, is found to be humid grounds; for a soil that is unretentive of moisture, or uninfiltrated by it, is unfavorable to its evolution. These spots occur alike in hilly or mountainous as in champaign countries and near the level of the sea. They are generally characterized as low, soft, moist and spongy grounds, and are known under various designations, such as marsh, morass, swamps, fens, or bogs. In differing degrees and extent, these occupy the borders of water courses, ponds or lakes; low shores not exposed to the daily ebb and flow of the tides: those places especially where fresh and salt water intermingle by infiltration, as seen in the moist flats that are just above high tide and subject to the oozing of fresh water from the more elevated banks, or in basins or depressions, where, by inundations of the sea, slime and saline deposits are acted upon by subsequent rains; the interior basins of the country; and recently cleared forests, which present all the essential conditions of a marsh, in whole or in part.

Other localities indicated as malarious, about which observation leaves little to doubt, are those which, though apparently dry at the very surface, yet reveal a constant supply of water a few inches below; retentive argillaceous basins or flats, even when superimposed by a stratum of sand; irregular rocky sites, embracing miniature marshy deposits of vegetable mould, or mud with organic detritus; and in particular the irreclaimable swamps and mangrove thickets of the sea-coast of tropical climates, not yet sufficiently explored for scientific precision. Other sources of malaria, perhaps not often suspected, may be occasionally traced to spots where a free deposition of dew or aqueous vapor from the sea takes place on a rapidly radiant soil, ordinarily a dark clayey loam or vegetable mould; from the former quality of soil I have obtained during a persistent drought over 20 per cent. of water.

Instances have been adduced by authors as apparent exceptions to this law of humidity, but they evidently failed to notice all the accessory circumstances, and besides were often led astray by preconceived theories from searching in the right direction.

Ferguson cites dry, sandy plains and parched regions in Dutch Brabant and Spain, all of which are sickly; others have mentioned in Italy, Civita Castellana and Monte Pincio noted for cleanliness: but when minuter descriptions of these places are obtained, the influence of water below the immediate surface or near at hand might, at least, always be inferred, if not actually found conjoined with known and positive sources of malarious emanation. A brief exposition of a single locality, the Pontine Marshes, the dread of hasty travelers, will suffice to elucidate this point. From Leghorn to the Kingdom of Naples extends the Maremma, a tract broken into gentle undulations, a little elevated above the shore line of the Mediterranean Sea, and though apparently dry, devoted to pasturage. Tradition represents a large portion of this plain to have been one of the most fertile in Italy. Here were laid the scenes that interested our boyhood—the wars of Turnus for Lavinia disespoused. Part of this plain is occupied by the Pontine Marshes, now a most pestiferous bed of diseases. This is so little above the sea level that an engineer of Pius VI. is said to have pronounced its drainage impracticable. The whole is situated on the impermeable volcanic tufa, forming the soil of Rome and the surrounding Campagna, which, with its numerous lakes, is highly impregnated with sulphurous exhalations, and therefore subject to hygrometric conditions favorable to the abundant production of malaria. A reference to the writings of Sismondi and others will show how changes from the exuberant bounty of ancient times have been effected by political and physical causes, and how some portions of Italy and other countries have been ruined by a gradual deterioration of climate—lessons that should prove warnings to our rulers.

A volcanic region under certain latitudes and elevations may become adapted to the *propagation*, but certainly *never to the spontaneous production* of malaria; for in no instance has an attempt to trace it to telluric exhalations proved of any avail. On the contrary, it is well known that colliers and miners in all countries are generally healthy; so that the weight of evidence on this fact alone is against any idea that malaria is developed elsewhere than at the very surface of the soil. Is there any other proof needed? Take for instance the immunity of per-

sons living with impunity under ground, and especially the case recorded by Dr. David Ramsay, and republished in 1840 in the *American Medical Intelligencer*, of protracted exposure for three months in a covered drain of the city of Charleston, pending the successive existence of yellow, intermitting and other fevers above ground, during which time the individual remained in excellent health.

The conclusion at this stage is that malaria requires for its propagation a permanent, not shifting soil, existing in a moist, stagnant condition, such indeed as is suited to the growth of some sort of vegetation, however coarse or simple in structure, but dependent upon a supply of water by infiltration; and thus time has corroborated the views of Cullen as to the paludal origin of intermittent fever, and justified the term of *paludal fever* as first introduced by Dr. Young.

If humidity is essential to the propagation of malaria, a superabundance of water tends to its destruction; and therefore the interior of wet swamps and the banks of rivers during floods and freshets are found to be comparatively healthy. But when such swamps are recently drained, and when in the warm season the rivers subside within their beds, a reverse condition obtains. So also in very dry seasons, when the expanse of some ponds and lagoons is shrunk by solar evaporation, leaving their oozy margins exposed for a considerable time, much severe sickness has existed in their immediate vicinity when it was healthy elsewhere. Observation further demonstrates that a marsh at the point of thorough saturation, ceases to yield malaria in its greatest potency; while above that point, as when flooded, the salubrity is restored, and continues so long as a sheet of water prevails over all low grounds, or at least till new marshes are formed above the margins of the flooded lands. The inundations of low grounds, as from crevasses or any similar cause, have had the same effect, and sometimes have acted as a complete preventive of fever in the locality.

The very able reports made by British surgeons from Gambia and Sierra Leone, show that fever has in most years appeared and raged with the greatest violence during the height of the rainy season, when vegetation was most vigorous and healthy,

and the low grounds, being completely flooded, were in a condition supposed least favorable to the extrication of malaria. At the same time, in all those years, it was noticed that the high grounds about 400 feet above the water were much sicklier than were vessels afloat. The fever diminished in prevalence and severity as the rains moderated, when the paludal spots which had been formed above disappeared in proportion as the succeeding season became established; vegetation then partook of the effect of the drought, and even the marshes at the water level began rapidly to dry up. In another year the whole country upland, as well as lowland, became completely saturated with water, and then it is stated all diseases disappeared. Every observation proves that especially in intertropical regions, during the rains, paludal spots of various dimensions may be formed in all sorts of land, sandy, plain, or mountainous. But where extensive regions are flooded by the prevailing freshets of such mighty rivers as the Orinoco, the watery expanse is innoxious compared to the borders of the adjoining high and uninvaded lands. Was it not from a knowledge of this fact that some half civilized and even barbarous people, both of South America and Farther India, built their domicils on piles or suspended on trees, to be in the midst of the inundation when it occurred? These circumstances, together with the facts that ocean voyages are not prolific of fevers, and that fogs, even when most dense in higher latitudes, are not insalubrious, prove that humidity is only a factor of malaria, and of itself incapable of giving origin to paludal fever.

The waters that presented the greatest impurities, as those of stagnant pools, have been often supposed to evolve malaria from their surface. These contain the remains of animal and vegetable matter undergoing decomposition and becoming in part soluble, to supply nutriment to a succession of living plants and insects that re-occupy the place of those that perish. Their surface is covered by conferva and other aquatic plants, and their temperature is higher than pure water. The taste is vapid and unrefreshing, often very unpalatable, although the impurities are mostly suspended and can be removed by filtration, leaving the water soft. The internal use of these waters does not give origin to paludal fever, whatever other symptoms of an ady-

namic fever, or of scorbutus or disorders of the digestive organs they may occasionally cause. From an ample experience, it does not appear that the internal use of these waters is always and under all circumstances injurious.

Contrary to the teachings of our predecessors, malaria will be found not always dependent upon the quantity of vegetable remains in the soil, or upon their existing there in a state of putrefaction. The greatest results seem to proceed from these remains when, like humus or ulmin, they are, under ærial influence, in a condition to minister to the growth of plants. Their percentage may be small, as may be found in some arenaceous flats near the sea; and yet from an admixture of saline and fresh water by irrigation or by atmospheric convection, an increased evolution of malaria may be the consequence. Dry peat, which carries no vegetation, even when under the action of moisture, as in Ireland, is innocuous. But more recent vegetable matter, such as leaves and twigs that have been long buried in boggy lands and damp grounds rich in vegetable mould, when dug up in excavating ditches and canals and exposed to air and moisture, speedily disintegrate and contribute to the insalubrity of the vicinity. Yet on these soils rank vegetations or any pre-occupying growths, such as the helianthus, seem to rob malaria of some of its power. So also when the drainage is perfect, recently cleared and thoroughly cultivated land does not prove unhealthy. Many places in Spain and the West Indies, remarkable for their rocky surfaces, are said to be febriferous; but Gibraltar, which comes under this designation, has been proved by Hennen not to be devoid of malarious foci. These spots may often be very limited in extent, but still peculiarly active. There is a class of decayed vegetable substances, which, even in inconsiderable heaps, when exposed to heat and moisture in malarious seasons and regions, become mouldy, and are believed upon excellent testimony to give origin to paludal fever, and indeed there are good reasons to ascribe to them at such times all the essential conditions for malarious emanations. The most noted of these substances are cabbages, potatoes, flax, hemp, indigo and coffee. A most remarkable fact remains to be told—it is given upon the authority of the eminent Dunglison—that both flax and hemp, when raised and rotted in non-malarious regions, are devoid of

this deleterious effect. Some suspicion has arisen that malaria may be transported in such vegetable substances as coffee from hot to temperate climes, to be developed under appropriate causes.

With the presence of all the causes hitherto named, a notable immunity may occur, and palustral spots, as in New England, may prove altogether innocuous under circumstances that go far to show some other element or factor to be absent; for a reverse condition obtains elsewhere, as on Lake Champlain, which cannot be accounted for except on this supposition. Nor are these remarks applicable to the temperate zone alone. The physical characters of two localities within the tropics may be apparently the same, and yet they may not be unequally unhealthy; thus, Singapore and portions of Guiana, which abound in swamps, marshes and lagoons, are not as sickly as places in Jamaica, where marshes are little observed, and still less so than in pestilential Batavia.

Hence, while much filth and vegetable matter in the soil are not absolutely indispensable for the propagation of malaria, their abundance is not *necessarily* accompanied with much sickness. The same location in this latitude may suddenly become free from malaria, as if it had been exhausted there, or the soil had become unsuited to its existence. Indeed, there is besides some evidence of the observance of cycles in the recurrence of the severer manifestations of paludal fever. On a further investigation of this subject, it does appear that the physical properties of soils, such as color, attraction for moisture, porosity or disintegration, and their power to absorb ammoniacal gas or some compound of nitrogen, hold some relation to the propagation of malaria; but as enough precision has not been attained in this direction, a bare mention is all that is now pertinent. It may, however, be stated, that in sudden irruptions of the sea, such as have been witnessed on this coast, the water destroys the growing crops, shrubs and even trees; and where the soil has been thoroughly saturated, its fertility ceases for a year or two, but returns afterwards in renovated vigor when the saline matter has been dissipated or decomposed.

All known facts point to malaria as a material substance, and not as a gaseous admixture or special condition of the atmos-

phere. Dr. Blair, formerly Surgeon-General of British Guiana, defines it to be "an aerial poison, probably organic, which requires a certain temperature for its generation, and affects localities." It irradiates as a cause of immediate disease from certain acknowledged spots, and from thence may be wafted or borne to more distant points, to generate anew other foci of infection; and this transportation may occasionally be traced over limited extents of country to newly-formed paludal spots. Further South the increase of sickness has kept pace with the abandonment of the rice fields and the quantity of high lands cleared in their vicinity, on which malaria encroaches like the sands of the desert. Its production there not only engrosses a larger area, but under certain conditions is so accelerated and intensified as to attain virulence at a much earlier period of the year than formerly. Prof. S. H. Dickson says, "Planters in the olden time remained, they tell us, safely among the rice fields until June or July. It is now attended with some danger to delay their removal later than the beginning of May;" and he adds, "these facts are not easily accounted for." A better acquaintance with this subject might lead one to trace this change to the removal of growths that formerly preoccupied the grounds; the dyking resorted to in the water culture of this plant, which in all countries, with perhaps the exception of Bengal, is notoriously associated with malaria.

Regions in more northern latitudes, in which had existed for generations all the known conditions thought necessary for the generation of malaria, have been but recently invaded, as if a new and important factor had been added; and similar observations have of late been made in several of our own mountainous districts. Indeed, tradition, if given due weight, would go far to testify, in many instances, of the migration of paludal fever northward since the settlement of America. Perhaps this was due to the progressive clearing of forests favoring its development, or, like some other agent, to its introduction in the course of commerce and the intercommunion of people. These suppositions are strengthened by observations sometimes made, that the first invasion of malaria into a new settlement was often milder than when it became an annual scourge; that intermittents gave place to remittents, and these to pernicious fever.

Malaria is less potent during the day and at midnight, unless at the latter period a high hygrometric point obtains, as manifested by chilliness and a continued deposition of dew, or in the former under the oppression that sometimes precedes rain and is favorable to the diffusion of aroma. Persons may safely hunt over marshes by day, while at every footstep gases are disengaged, but it is even then deleterious to recline or sleep at the marsh level. * Whatever be the element, it is apt to sweep along the ground in the lower stratum of the air. At nightfall it invades, by preference, the lower stories of dwellings, while the upper ones may be spared. This fact may be very often verified in hot climates, where soldiers and others are known to sicken most when allowed to sleep on ground floors or on a floor but little removed from the ground. The most insalubrious effects are ascribed in all countries to the condition of the air at sundown, or soon afterwards; and hence conclusions have been justly drawn to the increased capacity of the air at that hour to transmit something deleterious to health. This capacity, upon investigation, is found to appertain to its aqueous vapor, then condensed near the surface of the earth. That the hygrometric element is the chief vehicle for the transmission of malaria, the experiments of Dr. J. K. Mitchell on the penetrativeness of fluids, &c., though made for another object, establish beyond doubt. "Many solids," says he, "are dependent upon water for the power of penetrating tissues," and "it appears that many odorous solids in particular enter the atmosphere solely by penetrating its hygrometric element."

The amount of aqueous vapor suspended in a cubic foot of air varies with the temperature; thus, air saturated with water has at 90° Fahr. a specific gravity of .88260, and the quantity of water in saturated air at the same temperature is .04766; but at 32° Fahr. the specific gravity is .99637, and consequently it has less water and more oxygen in a given space. Bearing this in mind, the effects of a high hygrometricity in a calm, clear September night, and in the vicinity of a sheet of water, possess some interesting features to the student. In one instance, an hour before sunrise all the trees and shrubs were dripping from a constant and copious precipitation of moisture, which fell like rain to the ground, the air became chilly, and the person

felt permeated with moisture and chilliness, and presumably with malaria, for a paludal fever followed within twenty-four hours. It is a matter of common observation, that dew will saturate leather and clothing much sooner than does ordinary water.

As all investigations into the gaseous nature of malaria have, since the days of De Saussure, constantly yielded negative results, it is only necessary here to advert very briefly to the composition of atmospheric air, and this merely for the sake of the argument. The best analysis of it yields nitrogen 79.19, oxygen 20.81, carbonic acid from 3.7 to 6.2 in 10,000 parts, and, according to Liebig, a trace of ammonia. There have been recognized also slight traces of nitric acid, ozone and iodine, besides exhalations from organized matter, whether decomposed or not, the volatile oils of plants, and the products of combustion or of volcanic action. And since it has been amply demonstrated from experience that none of the gases, whether in the laboratory or not, is capable of generating paludal fever—a fact which the observation of physicians will confirm—there remains only the organic matter that may be present in the air, in infinitesimal quantities, to be separated therefrom and interrogated. Long ago Moscati, acting from such considerations, obtained from the dew condensed from the rice fields of Tuscany, when treated after his method, flocculi, which had the properties of an animalized substance, that is, nitrogenized. Subsequently Rigaud de L'isle collected water by condensation above the marshes of Languedoc, and this readily putrefied and exhibited flocculi of a highly azotized matter, which afforded a purple reaction with nitrate of silver. Boussingault, while residing at Carthagena, South America, demonstrated by experiments the presence of carbonaceous matter from the deposition of dew on glasses exposed in malarious places. Thus the researches of these illustrious men have resulted pretty nearly alike in detecting a substance containing nitrogen in the first two instances, and presumably so in the third.

Malaria is somewhat heavier than atmospheric air, but under certain hygrometric conditions, it rises and floats in the air and obeys its currents. Its horizontal range is more limited than what one might have supposed, being seldom conveyed by ordi-

nary winds beyond a distance of 500 yards over land, and still less over water—which latter in all probability has a tendency to attract and absorb it. Its vertical ascent, under usual circumstances, does not appear to exceed 300 feet before it is rendered innocuous by dispersion. Should it be arrested by hills to leeward, it may accumulate there by continued influx, or be propelled even to a height of 500 feet or more. Ordinarily, when moving under a combination of vertical and horizontal forces, gravitation ultimately reasserts itself and malaria is borne earthward, judging this fact from the topography of certain districts and the effects manifested in time and space. The conduction of malaria seems much facilitated by the hot days and cool nights of its appropriate season. At times it may be arrested in its horizontal progress by walls, trees or even bushes; and though it settles by its gravity in valleys and low grounds, it may rise again under the influence of heat with the vesicular vapor in a vertical current, to descend at some other point.

Winds, particularly those from the south and west, bear it in their direction, whence places lying to the north and east of infected spots are more insalubrious than those in opposite directions. Soldiers that have suffered severely in this latitude from malaria, while encamped on the northern shores of ponds or lagoons, have experienced a cessation of sickness on being removed only a short distance to the southern shores under the protection of the prevailing southerly winds. A long prevalence of northerly winds, whether from a reduction of temperature, their coming from higher strata of the atmosphere, a particular hygrometric or electric condition, abate malaria; and during the sickly season, even an occasional shifting of the wind to the north for a few days was immediately afterwards followed by a reduction in the number of new cases of fever, and such as occurred were apt to be milder and distinctly intermittent in character.

Some of the preceding remarks may receive partial illustration from the following brief topographical sketch: In a certain locality seven farm houses occupied a range running north and south of about three miles in length. The northernmost house, situated in the midst of low grounds and quite close to a bog, was remarkably subject to fever. About three-quarters of a

mile and south of the low grounds, stood another house which was surrounded by clean, arable and light grounds, not subject to much surface moisture and noted for salubrity. At a further distance of about a half mile, the next house was erected on a rising plat, having a wide, shallow ditch on the west, and a swampy branch on the south, covered with trees and dense undergrowth; here existed an ordinary prevalence of the usual autumnal diseases till, against medical advice, the owner not only partially cleared the branch, but extended the ditch three or four feet deep through the midst of it, and threw up a bank of soft mud, which contained, among other matter, perfect forest leaves and twigs in a state of singular preservation, that had been buried some three feet in the earthy sediment. For two or three years afterwards forms of pernicious fever manifested themselves in the family and among the domestic servants. The next farm house was similarly situated, with a small swamp 200 yards to the south, but was screened by forest trees from the branch lying to the north about a quarter of a mile. It was peculiarly unhealthy, although another house, not more than 150 yards south of the small swamp, and having clean, arable and dry soil in other directions, was for many years entirely free from all malarious diseases. About 500 yards off, and on similar soil, stood the next domicil, with almost similar immunity, till the trees, growing in a swampy basin, of not more than six or eight acres, that existed about 300 yards to the south, were cut down. The malign influence so engendered did not extend as far as the house next immediately north. The next house to the south was itself situated on low, moist, argillaceous soil, and was always sickly.

ART. II.—*A Case of Sacculated Bladder.* By CHARLES DENISON, M. D., Denver, Colorado.

It occurs to me that I can furnish nothing for your estimable young journal which would interest your readers more than a copy of notes I took of a remarkable case that happened to fall into my hands while spending a month in Chicago, in the Spring

of 1871, after my hospital service. I have thought several times since this case was of enough importance to put on record.

May 6th.—At midnight I was called to see Mr. S., and found him suffering from retention of urine. He was a light-complexioned, rather small man, weighing probably 130 pounds. He was of nervous temperament, somewhat emaciated, and had a care-worn expression on his face.

The previous history, determined at various times, and some of it after his death, was as follows: In the winter of 1861-62, Mr. S., then a clerk in New York city, also a student of theology, suffered from severe attacks of retention of urine. The cause of this had probably been (not unusual) some previous local inflammation of a specific character. At that time his intense suffering lasted two weeks, and was little relieved by his attendant, a homœopath, of Brooklyn, of reputed high standing in that school, who "*distrusted the use of instruments, and so did not use them on his patients.*" Finally Mr. S. "felt something give way," and urine, which had been only dribbling from him for two weeks before, came more freely.

It seems to have been settled (after his death) that following this attack of retention much control over the bladder had been lost, as ever since his urine had come from him *without force*, dropping directly from the penis as though the usual *vis a tergo* was wanting.

It is perhaps pertinent to note that after the previous attack, his homœopathic attendant said to him: "You see now what you have saved yourself. If you had had an allopathic (!) physician, he would have used a catheter on you."

Beyond occasional slight trouble, causing some anxiety, he considered himself well after this. In two years, however, having become settled in the ministry, he had another attack of retention. This time relief was obtained by a catheter, after which he got along quite well for a long time. Occasionally he had suffered from "an indescribable sensation of pain" in the pelvis, and an "uncomfortable condition of the urinary apparatus."

I found the patient apparently suffering from retention of more urine than would be expected to collect in the ten hours since he had urinated. My catheter came to an obstruction in

or just beyond the bulbous portion of the urethra, which I deemed to be a tight stricture. Chloroform was then administered, but even with great care and perseverance the stricture was impassable. A little urine dribbled away as the influence of the anæsthetic passed off, and the patient had quite a comfortable sleep. Next day, the symptoms becoming serious, trial of the stricture was again made with sounds and flexible bougies of various sizes, but with no good result.

In the evening I called Drs. R. G. Bogue and Wm. E. Clark in consultation, both of whom failed to enter the bladder, though the stricture was engaged as before. We pronounced the stricture organic, and determined, for immediate relief, to puncture the bladder per rectum. Considerable difficulty was experienced in the first attempt to pass the trocar and canula into the bladder—the instrument, though pushed as far as was thought safe, seeming to enter some abnormal growth and not the bladder. But on turning the point of the instrument down toward the promontory of the sacrum, it entered easily, and from one and a half to two quarts of urine were drawn off.

The next afternoon, May 8th, the operation of perineal section was performed by Dr. R. G. Bogue, assisted by Dr. Powell, Dr. Clark, and myself. The hemorrhage was considerable, and the patient much exhausted. However, he rallied slowly, and got along pretty well for a week. I had always to draw off his urine with a catheter, which necessity we then thought was on account of the paralyzed condition of his bladder from previous over-distension. Soon, however, the urine began to grow dark colored, foetid, and then heavily loaded with mucus and mucopus. The offensive character of the urine was considerably improved by the use injections of weak solutions of carbolic acid twice daily. Yet the quantity of blood in it constantly increased, till, from exhaustion, the patient died, May 30th.

Dr. Bogue and I made a post-mortem examination seventeen hours after death, and a most interesting and rare state of the bladder was found, which fully accounted for the fatal result of the case.

The bladder was contracted, its coats firm and about three-fourths of an inch thick. The lining membrane was thrown into folds, which were covered with a straw-colored, gritty de-

posit. From the dependent portion in the base of the bladder, connecting with it by an opening from one-half to an inch in diameter, was a large pouch capable of holding probably two quarts. This pouch was spread over and firmly attached to the posterior cavity of the pelvis and the anterior surface of the rectum. Its walls were about a sixteenth of an inch thick, or less at some points, and on the inside partly covered with a thin crust, as it were, of the deposit mentioned above, and partly denuded of its lining membrane as after an inflammatory process.

The hemorrhage had probably come from this portion of the pouch, and the marks of the punctures made by the trocar remained in this and the thickened wall of the bladder. The bladder being contracted to less than the size of a man's fist, its thickened walls had prevented at first the trocar from reaching the inside of the cavity.

This deformity bore evidence of having existed a long time—probably, to some extent, since the attack of retention nine years before. The internal coat was thrown into folds at the opening of the pouch, which led to the belief that only the external coats of the bladder had been ruptured.

The case is interesting, as, in some of its features, it seems to be anomalous. Most all authors of surgical text-books mention the extreme rarity of this sacculated condition of the bladder, even when the protruded portion is small. Gross mentions a case of "sacculated bladder" in a man aged 84, in which the adventitious pouch, located similarly to the one mentioned above, held one gallon. The previous history of the case is not given. It was reported by Prof. W. W. Green, of Pittsfield. Holmes mentions that rupture from stricture is very rare, and adds, "recovery has never been known to happen."

In the case of Mr. S., it is reasonable to conclude that a partial rupture of the bladder occurred nine years before from over-distension, the internal coat alone not being lacerated.

Quinia for After-Pains.—Dr. Wm. Goodell, Physician in Charge of Preston Retreat (for lying-in women), Philadelphia, says that, in stubborn cases of after-pains, he has found nothing act so promptly as ten grains of quinia every six hours, until the ears ring—for which suggestion he is indebted to Dr. For-dyce Barker.—*Am. Sup.* (July, 1874) *Obstet. Jour. Gr. Brit. and Ireland.*

Clinical Reports.

- (1) *Labor Delayed until Tenth (?) Month.* (2.) *A Case of Laceration of the Finger, Illustrating the Reparative Force of Nature.* B. G. McPHAIL, M.D., U. S. A., Post Surgeon, Camp Apache, Arizona Territory.

CASE I.—On April 9th, at 10 P. M., I was called to see Mrs. K. D., laundress, aged 30, the mother of three healthy children. On my arrival she stated that she was taken with frequent and violent labor pains about an hour previous, which had continued regularly; that her time was up, and she expected her troubles soon to be over, as her labors were usually short.

A vaginal examination revealed that the os uteri was dilated to the size of a silver dollar, the waters unbroken, and head presenting in the first position. Assuring her that everything was progressing favorably, I sat down to await a speedy termination; but to my surprise the pains became less frequent and less severe, and in a little while ceased entirely. I then left, thinking my presence might have some restraining influence, promising to return in an hour—at the expiration of which time I found that no *return of pains* had occurred. Being unwell and not wishing to have my rest broken, after waiting for some time I administered $\frac{1}{2}$ gr. sulph. of morphia, hoping to delay a return of labor. Next morning early I inquired after my patient, and found she had gotten up as usual and milked her cow. Not being sent for during the day, I called in the afternoon and ascertained she had slept well during the previous night, had risen as usual at sunrise, gotten breakfast, and had been ironing most of the day, without any return of labor. On making a vaginal examination, I found the os uteri completely closed, so that I could not by considerable pressure introduce the end of my finger.

Soon after the above date I changed my station, but have since heard she was safely delivered *one month later*.

CASE II.—James P., farrier for Co. B, 5th U. S. Cavalry, aged 28 years, stout, strong, and of temperate habits. While securing a horse to a ring by means of a rope halter, the animal

got frightened and pulled back, catching the index and middle fingers of the left hand between the slipping rope and iron ring in such a manner as to tear the flesh from their extremities. From the third joint of the index finger the flesh was torn completely off, hanging only by a small piece of skin. The middle finger suffered in a similar manner, the flesh being entirely removed and the end of the bone exposed *half an inch*. When I saw the man he was suffering intense pain, and I dressed the wound with lint saturated with tinct. opii, having previously replaced the lacerated flesh of the index finger, intending the next day to remove the terminal phalanges. But the poor fellow seemed so much distressed at the loss of even a portion of his fingers, that I concluded to let them alone for a few days, when he could see and appreciate the necessity for the operation. But to my surprise the detached and lacerated parts of the index finger did not slough, but exhibited increasing signs of vitality. With alternate dressings of carbolic acid, basilicon ointment and simple cerate, *both fingers healed nicely*. The matrix of the index finger not being destroyed, the nail has been reproduced; while the flesh of the middle finger continued to granulate and literally *grew up one-half an inch* and re-covered the bone. The traces of the wound are now almost imperceptible, except the deficient nail of the middle finger.

Does it not often happen in wounds of the hand that important tissue is needlessly sacrificed, which from the vascularity of these parts might be saved?

Correspondence.

NEW ORLEANS, July 19, 1874.

Population, Nationalities, &c.—Immiscible Profession—Qualifications—French Physicians—Fees—Negroes, their Habits, &c.

Mr. Editor:—It is a difficult matter to determine how a medical correspondence from this city should be arranged. The cause of this difficulty will appear as we proceed. We have here a population of not less than 200,000 souls. Perhaps the

more correct estimate would be 215,000. Of this number about 65,000 are of African descent.

The white population consists of Americans and English, French, Spanish, Italians and Sicilians. All these various nationalities may be regarded as presenting quite distinctive lines of demarkation. The last mentioned class is made to include all the immigrants from the Mediterranean islands and borders, and they are vulgarly called "Dagoes." I am not acquainted with either the derivation or signification of the term. These are the people who still practice the ferocious *vendetta*—the victims to which die the most heroic deaths, refusing always to disclose to officers of the law the names of their murderers. They live in absolute defiance of all sanitary laws, and when they fall sick hesitate to call the physician until a late moment, and then fail to co-operate with him by carrying out his instructions. I have heard this population variously estimated at from 10,000 to 20,000. For the most part their employment is fishing and selling fruit.

The physicians belonging to these various nationalities are as exclusive and immiscible into a professional unification as are the various "sets" to which they are respectively attached. Many of the French physicians are unable to converse or write in English. I mention all these points in order to explain the utter lack of homogeneity in the medical profession, as a body, which characterizes this city.

If I were called upon to give my opinion of the general profession here, in point of attainments and skill, I should certainly rank it as equal to that of most other cities of the United States. The French physicians are for the most part men of thorough education, and who spare no pains or trouble in "working up" their cases. Their diagnoses are carefully elaborated, and their clinical records are often models for accuracy and frequency of the observations made. For all this, however, I venture the opinion that as a body they lack that fertility and originality of resource and expedient which distinguish the Anglo-Saxon physician as a practitioner. I must, however, confess that this opinion may be the offspring of a long existing prejudice in favor of the professional merits of the American Doctor, whether he be a plain cross-road disciple who straddles saddle-

bags and calls "colic" by its right name, or whether he is a full fledged city bird, who sometimes feels it his policy to smooth over the vulgarity of the affection by suggesting a "neuralgia of the stomach." I have met in consultation many of the leading French physicians in this city, and cheerfully testify that some of our most learned and skillful physicians and most accomplished scholars are found amongst them.

Looking at the medical profession as a "guild," as the merchant would estimate his own board of trade and their dependents, it presents many features which, to medical residents of most of our other cities, would seem somewhat strange. One of these *abnormities* (shall I call them?) consists in a total want of anything like uniformity in charges for professional services. The charge for an ordinary visit varies from *five dollars to one dollar* with different physicians and in different parts of the city. Quite a number of physicians also practise in private families for a fixed yearly salary. Then a vast number of Societies and charitable institutions exist in this city, each of which employs a physician at a fixed rate. Your readers can now readily understand that medicine, as a trade, is in this city a cut-throat business. Still we claim to be well-behaved cut-throats, who generally appear disposed to suffer martyrdom at one another's hands without much complaint.

I cannot compute the per cent. of doctors to the aggregate population in this city. A glance at Toner's statistics will show that the number of physicians has diminished in the State of Louisiana during the decade ending with the last census. No doubt the diminution is greater for the State at large, *in ratio*, than for the city. Yet I am quite sure the proportion would not be excessive, perhaps would scarcely equal the demand in a population of 200,000, cultivated and homogeneous people. One of the chief reasons for the improved expectations of human life, brought about by civilization and diffusion of knowledge, is found in the obligations of heads of families for the immediate employment of a medical adviser in cases of sickness and their responsibility for his fees. Ignorant and barbarous people recognize no such responsibilities.

The negro here is ready enough to call a physician, but is wretchedly bad pay, and a worse nurse. This practice is, there-

fore, more to be avoided than courted. This simple-minded and improvident race fully answers Joseph C. Neal's division of the human family into a "cat kind" and a "mouse kind." Their feline friends rob them of millions, by selling them tawdry pictures of politicians and of "amendments," until the boards of every hut are over-hung with them. Of course they have no money to provide necessities of life, or for protecting health. All of these circumstances, together with vicious indulgencies, idleness and filth, increase the negro mortality to a fearful rate. All statisticians admit that the infantile death rate of a community furnishes its surest health barometer. According to Prof. Chaillè, the death rate per 1,000 of white children under two years of age, was, in 1873, 181, while that for blacks under the same age was 335 per 1,000.

Will it ever occur to that learned bigot who boasted to Tyn-dall that we had "made a voter of the negro," that no measure could have been instituted which will inure more rapidly to his moral and physical destruction than that which exposed him to those temptations which have turned him away from the simple pursuits to which he is fitted, and plunged him into those vices and immoralities which contemporary politics positively enforce?

Perhaps I have written quite enough for one letter. I propose in the next to continue the subject of the medical profession here, and tell something more of regularities and irregularities.

Respectfully, &c.,

ESSEMBEE.

Drainage for Health—Value of Willow Trees.

Mr. Editor,—I have read recently in your journal several articles under the caption of "Drainage for Health," which have interested me much; and I venture with some diffidence to express an opinion, it may be, at some variance with the opinions set forth in those articles.

In this section, and according to my observation in other States, the pine tree delights in high sandy soil, where the water is far from the surface. Around the roots we sometimes find growing luxuriantly shrubs, grasses, and wild flowers, which do not thrive in wet land. Here the pine attains its

full development, and will grow from the seed in a few years sufficiently large for rail-timber, such as we use for fences. In low, flat and wet lands, where the water is near the surface, the pine will not grow thriftily, but is stunted and knotty, seems to worry out a miserable existence, and is of no use; the rail-splitter has a vulgar name for it expressive of its toughness and contrariness in splitting. The pine, then, according to Dr. Porcher and others, evidently has no taste for moisture, and does not ask much for its sustenance. Its leaves are always green; it sheds them periodically, and they extract more moisture from the soil where they fall, or contribute more towards drying it, than do the stump-holes in draining the surface water. If we wish to fill up a wet place, pine-straw and earth are thrown into it, and soon the water is all absorbed or evaporated, and the straw intimately incorporated with the earth—the whole becoming after a time *ashy*. Thus our wet and hard lands are frequently made light and dry and more productive.

The stunted pines, which we find in situations where the water is near the surface, are generally *heart* or *lightwood* containing very little sap—at least the roots. We have not unfrequently seen servants extract pine roots from old decayed stumps, with both hands lustily working backwards and forwards, until, with a strong pull and a backward fall, out would come the root; and the water would rush in from below the surface and fill up the hole left lined by the bark which slipped off the root in its extraction.

I would remark just here that most of the water, in my opinion, seen in stump holes is not that drained directly from the surface; but is brought up from below where the roots penetrate the clay and meet water—just as *when the water is low*, they will drain, *from the surface*, water which cannot otherwise get through this clay.

Now, granting that the pine will not grow luxuriantly in wet grounds, what do we see growing there? oak, gum, holly, laurel, and willow. The latter seems to require a great deal of water for its healthy growth; and its tender and brittle branches attest the great quantity actually appropriated by it. We know, besides, by observation, that the willow does have the effect o

drying land, not to the extent, perhaps, of *Eucalyptus*, but certainly to a *very great extent*, as any one may confirm for himself by observation.

But since the *Eucalyptus* will not grow in this latitude, as has been already pointed out by other observers; and since the pine thrives best in this section *only* upon high sandy soil; and since the willow *does* grow most luxuriantly in low, wet places, we might plant it in the sections indicated. Besides its sanitary value in draining the wet soil, and neutralizing by its presence, or by absorbing certain noxious effluvia generated in boggy lands, its bark, or its active principle, *salicin*, is serviceable in the treatment of paludal fevers—especially that form, most common in this county, known as *ague and fever*. We have no better indigenous antiperiodic and tonic than the willow; and in my practice I have seen intermittent fever cured by its use when quinine has failed to do more than arrest the paroxysms for a time.

The suggestion as to the value of cultivating the willow, however, does not do away with the suggestion of Dr. Cabell regarding the planting of pine where it is practicable; for certainly that tree is a great purifier of the atmosphere of malarious districts, and thus it contributes materially to health. But where the pine will not grow because of a super-saturated condition of the soil, my suggestion is to plant the willow.

In conclusion, I am of opinion that our malarial diseases are due more to a general *saturation of the soil* than to any ponds or pools, and any system of drainage that will relieve the soil of this overcharge of water will add in the same proportion to health.

WM. S. STOAKLEY, M.D.

Northampton Co., Va., Aug. 8th, 1874.

NEW YORK, August 6th, 1874.

Changes in Bellevue Hospital Board—Effect—College Prospects—Faculty Changes in University Medical College, &c.—Rapid Multiplication of Hospitals, &c.

The chief topic of medical interest here at present is the sweeping changes just made by the Board of Commissioners of

Public Charities in the constitution of the Medical Board of Bellevue Hospital. In making the new arrangement, it is claimed for the Commissioners that they are actuated by the desire to equalize the representation in the hospital staff of the three medical schools in the city, namely, the College of Physicians and Surgeons, the University Medical College, and the Bellevue Hospital Medical College—each of which is to have the same number of appointments of physicians and surgeons from their respective faculties; while a like fourth division is to be chosen from members of the profession not connected with any of the schools. By this plan, however, the Bellevue Hospital College will lose at least seven appointments, and this fact very naturally has caused considerable ill-feeling on the part of certain friends of that institution, who have been accustomed to look on Bellevue Hospital as almost their peculiar property. As far as the interests of medical education are concerned, however, the change cannot be otherwise than beneficial; nor on the grounds of general fairness can this action of the Commissioners be impugned, for the Bellevue school scarcely numbers more than a third of the students which attend the winter sessions in New York.

The prospects of attendance this year on the part of medical students are more than usually good in this city. At the University we have been informed that the applications, even at this early date, are more than double those of the last year. This old-established institution expects in the coming year to greatly enlarge its building, and this session has enlarged its staff of instructors by the addition of Prof. Stephen Smith, late Professor of Anatomy in Bellevue Hospital College, who is to lecture on Surgical Jurisprudence, as well as hold clinics in Bellevue Hospital; Prof. John T. Darby, late Professor of Anatomy and Surgery in the University of South Carolina, to lecture on Surgical Anatomy; Prof. Wm. A. Hammond, late of Bellevue Hospital College, to lecture on Diseases of the Mind and Nervous System; and Prof. Montrose A. Pallen, late of St. Louis, to lecture on the Surgical Diseases of Women.

There is scarcely anything more striking in the progress of this city than the rapid multiplication of great hospitals within the past ten years. New York certainly possesses at present as

large a field for clinical instruction as there can be found in any city of Christendom. Besides the ten vast establishments under the Commissioners of Public Charities, and which are freely accessible to the students of all the schools, there are no less than twenty-two other first-class institutions, of which the majority are of recent construction, and with all the most improved facilities both for treatment and for instruction. It will be the fault of its medical profession, therefore, and not of the city itself, if New York does not soon become one of the first centres of medical education in the world.

It is, therefore, one of the best indications of the times that a great interest in purely scientific research is being developed here among the younger members of the profession; for without this supplement, the best clinical advantages will prove of little value to the course of medical progress. Physiology, pathology, physiological chemistry, and the applications of the microscope, stethoscope, etc., to medical research, are receiving a degree of attention which make the examiners who received their education twenty years ago feel rather uncomfortable in questioning the candidates who come fresh from the laboratories where almost half the instruction is of an entirely new order from that of former days. For this auspicious change the profession of the whole country is to be congratulated, and we doubt not that in a few years American medical students will find that very little can be gained by going abroad for scientific training, just as they now lose rather than gain, by so doing, in clinical instruction.

MED.

Analyses, Selections, &c.

Nidation in the Human Female.—J. H. Aveling, M.D., Physician to Chelsea Hospital, in the *Obstetrical Journal of Great Britain and Ireland* (July, 1874), calls attention to this condition, which article, because of its interest and value, we copy almost entire. He says:

Many writers have likened the change in the mucous mem-

brane of the uterus preparatory to the reception of the ovum to the act of nidification in birds. This peculiar function, lying as it does between the acts of ovulation and menstruation, has in a great measure been confounded with them, and has consequently not received that special consideration which its separate, although correlative existence, demands. Another reason why it has escaped attention is most probably to be found in the fact that hitherto this process has had no name applied to it. The similitude between it and the nesting or nest-making of birds naturally suggested one of the three following words as the most appropriate—viz: Nidification, Nidamentation, and Nidation; the last, appearing to be the most simple and sufficiently definite, has been adopted.

Definition.—The act of *nidation* consists of the periodical development of the mucous membrane lining the interior of the body of the uterus.

The Nidal Decidua.—The membrane thus developed has received a great number of names. The one now most usually employed is menstrual decidua; but as it is formed independently of menstruation, this is obviously a misnomer, and I have adopted as more appropriate that of nidal decidua. It is developed in the intermenstrual period, and immediately previous to the act of denidation, attains in some parts considerable thickness. Its deep surface is intimately blended with the muscular structures, and its superficial is thrown into irregular folds. *** The latest paper on the subject [of its microscopical formation] is that of Dr. John Williams, read before the Royal Society of London.

Periodicity.—Nidation being, comparatively speaking, an occult function, it is difficult to determine positively at what period of life it commences, how frequently it is abnormal in its character, or at what portion of the intermenstrual period it is most actively carried on. *** It most probably commences in an imperfect manner with the reproductive life of women, and recurs with regularity according to the periodic habit of the individual until that life ceases. During the week preceding menstruation, it appears to proceed more energetically than at any other time. The supply of blood is then very large, and so altered does the uterus become in size and appearance, that

its hyperemic condition has frequently been mistaken for that resulting from pregnancy.

The duration of the nidal period varies in different women. It usually continues three or four weeks, and corresponds with what has hitherto been called the intermenstrual period.

Nidation and Ovulation.—Without an ovary there can be no reproductive life, and without this life there can be no nidation. So far, therefore, nidation is dependent upon ovulation for its being. Sexual life, however, once established, the existence and periodicity of nidation proceed with an independence and individuality, the actuality of which is little appreciated. *** In spite of the destruction by morbid action, or removal by operation of both ovaries, nidation is found in some cases to be continued. It also occurs when no ovum reaches the cavity of the uterus. In extra-uterine pregnancy, the nidal decidua is formed as it also is in the non-gravid half of a bi-cornate uterus.

The relations existing between nidation and impregnation are but little known. Dr. Power, however, saw how far one must be dependent upon the other. He says, "When the ovum is mature, the uterus should be properly prepared for its reception. Any derangement in the equilibrium of this relation will tend to derange the subsequent steps of the process; thus, if the ovum is matured before the uterus is prepared for it, the conception will be rendered abortive; *et vice versâ*, the same effect will ensue if the uterus is too early prepared for the reception of the ovum." It seems certain that ova are discharged from the ovaries at irregular periods, and not as has lately been believed once a month at or near the time of menstruation. It is therefore an interesting question to decide at what period of nidation the uterus is in a most fit condition for receiving the ovum and permitting impregnation. Probably when the process of nidation is most active, insemination is impeded by the obstacles to the progress of the seminal fluid caused by the largely developed nidal decidua, and the increased secretion of tenacious cervical mucus. At this time the uterus is more particularly prepared for the reception of the ovum, which in an impregnated or unimpregnated condition may be slowly making its way down the Fallopian tube. I have often observed that a sound will pass readily into the uterus at the commencement of nidation, and

that it can scarcely be made to enter at its conclusion. It has been contended by some authors that nidation does not take place independently of impregnation. This hypothesis, however, cannot be maintained, for Mondat discovered the nidal decidua in two sterile women who had never menstruated, and Courty has removed it from the vagina of a girl whose hymen was perfect.

Nidation and Lactation.—During the latter days of nidation, a sympathetic hyperemic condition of the breasts is frequently observed. They become tumid and painful, and not unfrequently a thin milky fluid is secreted. When denidation has taken place, all these conditions suddenly disappear, and the breasts again become softer and smaller, and lose their tenderness. After parturition, when lactation is fully established, the function of nidation is probably suspended; but it is speedily re-established when the nutritive demand of the breasts ceases.

Denidation.—Nidation has been likened to gestation. Denidation may be compared with parturition. The nidal decidua having reached its full development, and no impregnated ovum having arrived to demand from it protection and sustenance, a process of degeneration takes place, its attachments are loosened, and it is expelled by the contractions of the uterus, sometimes wholly in the shape of a triangular sac, but more frequently in minute portions. How long this process occupies has not been determined, but it is probably completed during the menstrual period.

Denidation and Menstruation.—The act of denidation probably determines that of menstruation, because it is from the denuded surface of the uterus, caused by the removal of the nidal decidua, that the menstrual flow comes. Power declares the efficient cause of menstruation to be, “an imperfect or disappointed action of the uterus in the formation of the membrane (decidua) which is requisite for its connection with the impregnated ovum.” He also says, “an improvement might be made upon the axiom that ‘women who do not menstruate do not conceive,’ by substituting ‘a woman menstruates because she does not conceive.’”

I have no intention of ignoring the individuality of the menstrual nisis. Where no uterus exists, and consequently no ni-

dation, moliminal symptoms are observed, and blood issues from various parts of the body. It must, however, be admitted, that denidation and menstruation are generally contemporaneous phenomena; and, although both may have separate existences, and the latter is not necessarily a sequence of the former, menstruation must in most cases be controlled in its periodicity by nidation. The relative values of the two acts are very widely different; for, whereas nidation must be looked upon as a primary and important reproductive function, menstruation, as is well known, is secondary and insignificant. Many women become pregnant before menstruation, and others have borne children who have never menstruated at all. The process of denidation is doubtless very much assisted by that of menstruation. By the menstrual flow the *débris* of the nidal decidua is floated and washed out of the uterus and vagina, and in this way the denidal act is rendered more prompt and effective.

Disorders of Nidation and Denidation.—Painful Nidation.—Every gynecologist must have met with patients who suffer pains in the pelvic region, commencing a week or ten days previous to menstruation. In many it appears exactly a week before the period, and it continues with more or less intensity until the menstrual flow is fully established, when all suffering ceases. It cannot be doubted that this pain is due to nidation. It occurs in women having a chronic hyperemic condition of the uterus, which is doubtless increased by the afflux of blood necessary for the formation of the nidal decidua. Two hyperemias of morbid and physiological origin thus unite to produce the pain, weight, and numberless other sympathetic feelings so often met with.

Hypernidation.—The large afflux of blood just referred to, if it produces no pain, will certainly have an influence upon the development of the nidal decidua. This intense hyperemy is the cause of that increase of its growth which ends in the production of a decidual sac, so tough as to resist the ordinary denidal disintegration, and to pass from the genital passages in an unaltered condition. Scanzoni had two patients who, from their symptoms, could always say with perfect certainty one or two weeks before the return of the menses, whether or not they would pass membranes. Power believed hypernidation to be due to increased ovarian action. This may be one factor, but it

is evident that every cause of uterine hyperemy, whether active or passive, must have the same tendency. It is a question whether excessive proliferation of the nidal decidua is not sometimes produced by what may be called *missed denidation*. Cases in favor of this view are not wanting. Women suffering from hypernidation are not necessarily sterile, for many cases have been observed, in which impregnation has taken place, notwithstanding the monthly expulsion of an unduly developed nidal decidua.

Subnidation.—There can be little doubt but that in cases of serious disease and great weakness, the function of nidation, like that of ovulation and menstruation, is sometimes held in abeyance, and the nidal decidua is either not formed at all or is imperfectly developed. It is difficult to say what influence subnidation would have upon menstruation, but it is easy to conceive what effect it must have upon fecundation. An impregnated ovum arriving in the uterus when unprepared by the nidatory process for its reception would very probably be aborted. Subnidation, therefore, must be looked upon as one of the causes of sterility. Dr. A. K. Gardner fully admits this. He says, "The defective or absent formation of this uterine mucous membrane is most probably a frequent cause of sterility, especially if all the ordinarily observable conditions of menstruation be present. An egg is discharged normally and may even be as regularly impregnated, but it meets no proper nidus in the uterus.

Abortive Nidation.—There is, doubtless, a pathology of the nidal decidua, but this has yet to be studied. There is also probably such an accident as nidal abortion, capable of being produced by morbid, mechanical, chemical, traumatic, and physiological influences. This is another field for further investigation. What influence has it upon the too early recurrence of menstruation?

Difficult Denidation.—The process of denidation may be divided into two periods, the separative and the expulsive. What the disorders of the first are must for some time remain in obscurity; but the troubles attending the second stage have been known and appreciated for a long time. What has hitherto been called membranous dysmenorrhea is in reality a disorder of denidation (*dysdenidation*). In cases of hypernidation, the

uterus frequently experiences great difficulty in expelling the hypertrophied nidal decidua. It fills up the internal os and cervical cavity, and mechanically obstructs the flow of the menstrual fluid, producing pains as agonizing and continuous as those of childbirth. This difficulty is of course increased when any contraction or flexion of the uterine neck exists. Painful expulsion of the nidal decidua may also take place, independently of menstruation, as has been observed by Waller, who says,—“There is often no menstrual secretion, but in its stead a tough thick membrane, resembling the tunica decidua of pregnancy, is discharged, the uterus acting forcibly, as in labor.”

Treatment.—I will not here enter into the treatment of the disorders; no rational application of remedies can be used in these cases unless it be guided by a competent knowledge of their etiology. When it is necessary to operate in any way upon the cavity of the uterus, it must evidently be unwise to do so during the latter days of nidation, whereas depletion, as a rule, will be most required and effective at this period. Tents and stems when used should be inserted early in the nidal period.

Gravidal Nidation.—When impregnation takes place denidation is postponed, and the nidal decidua continues to be developed in a manner so well known as to need no description here.

Gravidal Denidation.—It may be broadly stated that denidation is always due to a cessation of the nutritive action subservient to reproduction. When the demand ceases the supply is withheld. In ordinary nidation the nidal decidua, having arrived at its normal development, degenerates, disintegrates, and is discharged, because no further demand is made upon it. The same occurs in gravidal denidation. A discontinuance of the claim upon reproductive nutrition is most commonly caused by the full development or death of the fetus. In either case denidation naturally follows. We have here, I think, a rational explanation of the determining cause of labor. Even in extra-uterine gestation, when the fetus dies or arrives at maturity, denidation takes place, and the nidal decidua is expelled with uterine pains simulating those of parturition. The analogy between the lochial and menstrual discharges has frequently been insisted upon.

Partial gravidal denidation, artificially produced, is one of the best methods of inducing premature labor.

Long Tape-Worm.—Dr. S. P. Cutler, in *Nashville Journal of Medicine and Surgery*, April, 1874, says:

A gentleman, living in Arkansas, about 49 years old, stout, healthy, bilio-sanguine temperament, discovered he had tape-worm in the fall of 1870. *** He procured a specimen several inches long, which, on sight, I pronounced to be a tape-worm. He said such pieces were constantly coming away, and had been for some time, though he felt no inconvenience from it in any way.

Soon after this, he passed a piece about 40 feet in length, as he thought, but he did not save it; he went back to the spot, however, and found 12 feet of it, the hogs having been there. This I preserved in alcohol. The joints are about one inch in length, and a quarter inch broad, with invaginated articulations; the tail end is rather smaller, and enters the head end of the tape-like tube, which is white, flattened, and adheres to anything it touches.

At one time there came away a section about two hundred and fifty feet in length, tapering almost to a thread; joints short in proportion, ending in a thread-like elongation, though the same structure. The patient says he has discharged, in the 22 months of its recognized existence, some three or four hundred feet of the beast! He has been under several doctors, exhausted the list of remedies, bringing away large quantities, but not the head.

From the fact that there is never any uneasiness about the stomach, no itching at tip of nose, but itching frequently at anus; and from the fact that segments frequently come out of their own accord, we necessarily conclude that the animal is located low down in the bowels—so low that there is not much constitutional disturbance; then, after passing off, for some time nothing is seen or felt.

Segments of the same, dried, shrink nearly one-half their normal size; they become very brittle, and have a glossy appearance, brownish in color.

Section through the centre of the links show cells, or eggs, spoken of by authors—somewhat smaller than blood-corpuscles, homogenous in structure, and quite transparent; the segments are hyaline in appearance. ***

The above worm has been destroyed; for more than a year nothing has been seen or felt of it. During a spell of sickness in the fall of 1872, the animal was no doubt destroyed by the remedies taken.

Hypodermic Injection of Ergot in Post-Partum Hemorrhage.—P. C. Williams, M.D., Baltimore, in *Trans. Medical and Chirurgical Faculty of Maryland*, 1874, says:

The known effects of ergot in promoting uterine contraction long since determined me to try its hypodermic use whenever I was called upon to treat post-partum hemorrhage.

The first opportunity that presented was Mrs. R., a young woman of fine physique, who had no untoward symptoms during her pregnancy. She was confined with her first child in October, 1873. She had a long, exhausting labor, during which I gave four or five drachm-doses of fluid extract of ergot, with very little effect. After the head had remained for some time in the cavity of the pelvis without apparent progress, chloroform was administered, and the child was extracted by forceps without difficulty.

The placenta was expelled, and everything progressed satisfactorily, until suddenly, without appreciable cause, the uterus became completely relaxed, and produced a profuse hemorrhage, which exhausted the patient with great rapidity. After using the customary remedies, such as pressure, insertion of the hand into uterus, ice externally, and ice in the uterus, &c., without the slightest effect, I injected fluid extract of ergot, 3ss, in the inside of the thigh. Immediately my anxiety was relieved by discovering that the uterus was beginning to contract vigorously, and it promptly expelled my hand from its cavity. The contraction remained firm, and the hemorrhage was completely stopped. The convalescence of this patient was rapid and satisfactory.

The second case was a lady about 35 years of age, of frail figure, and rather contracted pelvis. Married ten years; had but one child, which was born with extreme difficulty about eight years ago. During her recent pregnancy, her general health was good. Towards the latter portion, she suffered very much from pain in the right hypochondriac region, which, up to the time of her confinement, totally forbade her lying on the left

side. Her labor was long and severe. During the last few hours of it I kept her more or less under the influence of chloroform, and occasionally gave ergot to prevent the chloroform diminishing the activity of the pains. No progress being made, I applied forceps and delivered the child. After waiting a short time, I endeavored to remove the placenta by traction upon the chord, which unfortunately broke. Examination revealed that the placenta was adherent over its entire surface. I again administered chloroform, and after prolonged and tedious effort, succeeded in detaching the placenta. The uterus contracted well.

I went across the room, but in a little while was recalled to the bedside by a gush of blood which was distinctly audible and alarmingly copious. I immediately injected fluid extract of ergot, ʒss, on the inside of the thigh. The flooding was promptly arrested, and did not return. My patient was prostrated to such a degree, however, that for several hours she could not make the slightest movement without producing serious attacks of syncope. This condition was relieved by a few hypodermic injections of brandy. The patient improved rapidly, and was soon restored to her usual health.

The third case was Mrs. S., about 35 years old, and mother of several children. She was a patient of Dr. Whitridge, who was sent for early on the 13th March, 1874; but before he reached the house, the patient was bleeding so profusely that she sent for Dr. Hartman, who lives in the immediate neighborhood. Dr. H., discovering that he had to deal with a placenta prævia, promptly "turned" and delivered the child and placenta. The patient seemed to be doing well, and the Doctor went home. Shortly afterward, Dr. Whitridge arrived and found Mrs. S. flooding to such a degree as to render her pulse almost imperceptible. He resorted to the usual treatment without avail. He then sent for me. In the meantime, finding that the flooding still continued, he injected fluid extract of ergot hypodermically, which arrested the hemorrhage before I reached the house. Her exhaustion was so extreme that we administered a second hypodermic injection of ergot to guard against the recurrence of hemorrhage. The hemorrhage did not return, and the patient was restored to health by liberal diet and tonics.

In the first and third cases, various means were resorted to without the slightest effect, until ergot was given hypodermically. In the second case, nothing was used but the hypodermic injection of ergot. In these cases the effect of the hypodermic was almost instantaneous, and it was permanent.

I used the fluid extract of ergot. It produced no abscesses, and was entirely satisfactory in its effects. According to the experiments of Dr. Squibb, of Brooklyn, ergotine does not represent the full therapeutic value of ergot, and therefore cannot be relied upon. Dr. Squibb, at the suggestion of Dr. Marion Sims, has made a *solid extract*, which is very efficient, and has been frequently used for the treatment of uterine fibroids. The solid extract is rendered fluid by "rubbing it up" with water, in the proportion of one grain of extract to one minim of water, when it is available for hypodermic use. This is doubtless the best preparation of ergot, and should be preferred when it is accessible. The *fluid extract* can always be procured, and its effects are so prompt and efficient that I have no hesitation in advising its administration whenever the solid extract cannot be obtained.

Treatment of Fractures of the Femur by Immovable Apparatus—especially by Plaster of Paris in the Form of a Continuous Roller—is the title of an article contributed by Prof. Frank H. Hamilton, M.D., to the August No. (1874) *New York Medical Journal*, the purposes of which are (1) "to enable us to form an intelligent opinion of the actual and relative value of the plaster-of-Paris dressing as practised at Bellevue [Hospital, N. Y.]; and (2) to determine what amount of shortening and deformity generally result from the treatment of fractures at the present day in the hands of our most experienced city surgeons."

The paper begins with a historical sketch of the "immovable apparatus" from the time that M. Seutin in 1834 first secured for it public favor until the present time. After referring to the remarkable successes by the Mathiesen method reported by Prof. Sands (*N. Y. Med. Jour.*, June, 1871), Dr. Bryant (*Med. Record*, Sept 15, 1871), and Dr. St. Johns (*Am. Jour. Med. Sci.*, July, 1872), Dr. Hamilton premises what further he has

to say by the remark, that in comparison with the successes detailed by these gentlemen, his "results will not be found equally satisfactory." He suggests as a possible explanation that probably all the cases were not measured or even seen by the gentlemen who reported them.

Dr. Hamilton reports every case which has come under his observation and examination—and no other. The measurements of these cases were all made either by himself, or in his presence by the house physician. Dr. H.'s experience has taught him that it is not always safe to trust to the measurement of others.

The first six cases reported are of fracture of the femur treated by the Mathieson method (the use of plaster-of-Paris as a substitute for starch and dextrine in the form of a continuous roller), introduced in 1852—patients 18 years old and younger—examined by himself.

I. Male; age 11; simple fracture middle left femur, Aug. 11, 1873; entered ward, 15; Bellevue. *Treatment*—On 3rd day, ether, pulleys and plaster, which included from pelvis to foot. *Result*—In 3 days on crutches; short $\frac{3}{4}$ inch; some deformity; ankylosis of knee when examined Sept. 23.

II. Male; age 12; fracture just below right trochanters, complicated with fracture of both legs below knee, Aug. 29, 1873; entered Park Hospital. *Treatment*—Next day, plaster, including pelvis and foot. *Result*—March 11, 1873, femur short 1 inch; much deformity.

III. Male; age 16; simple fracture just below right trochanters, Dec. 29, 1871; entered ward 11, Bellevue, under Dr. Wood. *Treatment*—Buck's extension at first; plaster from loins to toes on 10th day; sent to Small-pox Hosp. 2 days later with varioloid. *Result*—March 11, short $\frac{5}{8}$ inch; straight.

IV. Male; age 15; simple fracture middle of femur, Feb. 7, 1874; entered St. Francis Hosp. under Drs. Sharlau and H. *Treatment*—Extension at first with 8 lbs. weight and counter-extension; on 15th day, plaster; did not include pelvis or foot; maintained by adhesive plaster from foot and 8 lbs. weight. *Result*—March 9, short $\frac{5}{8}$ inch; straight.

V. Male; age 16; simple fracture middle of left femur; Jan. 31, 1874, entered Park Hosp. under Dr. Fluhrer. *Treatment*—Fracture box 4 days, then with ether and pulleys, applied plaster, including pelvis and foot. *Result*—6 weeks afterwards; short $1\frac{1}{2}$ inches; straight; does not limp. [There is a typographical error of dates in this report as given in *N. Y. Med. Jour.*—ED.]

VI. Male; age 17; simple fracture middle of left femur; Nov. 3, 1873, entered 99th st. Reception Hosp. *Treatment*—Buck's extension at first. Next day, with aid of ether and pulleys, plaster was applied, including pelvis but not foot. Nov. 10, plaster, having broken, was removed, and re-applied, with ether and pulleys. Nov. 18, went home. Dec. 24, dressing removed. *Result*—Short 1 inch, and *great deformity*, by outward bending at point of fracture; complete ankylosis of knee. Dec. 27, under ether; ankylosis broken up.

Summary.—Six cases, two short $\frac{5}{8}$ inch; one $\frac{3}{4}$; two 1; and one $1\frac{1}{2}$. Least short, $\frac{5}{8}$ inch; greatest shortening $1\frac{1}{2}$ inch. Deformity in 3 cases; ankylosis in 2, of which 1 required anæsthetics, &c., for the purpose of breaking up ankylosis.

A table is then given of 22 cases treated by the Mathiesen method in persons over 18 years of age, of which 20 were treated while the patient was anæsthetized and the pulley used to extend the limb. Of the other two cases, one died during the administration of ether—the other was so seriously influenced by the ether that it had to be omitted, and treatment consisted in extension by pulley, weight to the foot, elevation of foot of bed, but no perineal band. *Result*—Short $\frac{3}{8}$ inch; slight knee-ankylosis, allowing motion through 15° .

Of the remaining 20 cases the following summary may be made: No shortening and perfect result in 1; short $\frac{3}{8}$ inch in 2 cases; $\frac{1}{2}$ inch in 1; $\frac{3}{4}$ inch in 1; $\frac{3}{4}$ inch in 3; 1 inch in 3; $1\frac{1}{8}$ inch in 1; $1\frac{1}{4}$ inch in 2; $1\frac{3}{4}$ inch in 1; 2 inches in 1; gangrene and death, 1. Average shortening in 19 cases, more than $\frac{3}{8}$ inch.

A supplemental report is given of 9 cases treated by other methods—chiefly by the use of Dr. Hamilton's double thigh splint, of which the following is a summary: Of 4 cases aged 18 years and under, result perfect in three cases; $\frac{1}{4}$ inch short in 1. Of the 5 cases over 18 years old, minimum shortening $\frac{3}{8}$ inch; maximum 1 inch. Average shortening in 9 cases, less than $\frac{3}{8}$ inch; limb straight in 5 cases; everted in 1; not stated 3.

Dr. Hamilton thinks that to delay applying plaster-of-Paris bandage until after subsidence of acute swelling would avoid, to a great extent, the danger of gangrene; though Dr. Sands thinks differently.

If the plaster does not include the foot, in a few days it generally encloses the limb so loosely that there is very little or no extension. "The top of the foot, therefore, and the heel are actually the parts alone to be trusted for the extension."

If the plaster loosens, it will not do to cut and tighten it.

"The mould is thereby too much weakened to give proper support when the patient is up." It is the Bellevue practice either to let it alone, or else apply another plaster with the aid of ether and pulleys.

Dr. H. thinks, with Billroth, that he has noticed delayed and non-union more frequently under the plaster treatment than under other methods.

Two cases of gangrene ensued upon the application of the plaster—one of which was accidentally omitted from the report in *N. Y. Med. Jour.* Dr. H. has never seen such a result at this period of fracture except where tight dressings were used. "A bandage applied over splints which do not entirely encircle the limb, leaving portions of integument without pressure, seldom or never causes these accidents."

*** "While I recognize the convenience and utility of *** immovable forms of dressings, in the treatment of certain fractures, it has not proved satisfactory, under my observation, when applied in the treatment of fractures of the femur; and especially when applied immediately after the occurrence of the fracture—my own method of treating these fractures, without perineal bands, with side-splints, adhesive-plaster extension, pulley and weight, having given better results (with no accidents) in the adult. In the case of children, my double thigh-splint has also given better results than has plaster-of-Paris. These methods *** avoid all danger of ligation and strangulation of structures; there is no perineal band to cause ulceration; extension is made by a method which equally—when properly applied—shuns the danger of ulceration about the heel, an accident so common with the old gaiter; the patients are comfortable; the limbs are seldom united with deformity; and the average shortening is less than with any other method yet devised.

"The fact that a man walks without a halt is no evidence that there is no shortening of the limb. *** Nor is it any evidence that the limb is not shortened because, while lying in bed, the heel of the broken limb can be brought down to the level of the other. By pitching the pelvis, the spine remaining erect, the heel may be made to descend, in most persons, two inches or more.

"The patient should repose upon his back, upon an even sur-

face, with his lower extremities as nearly as possible in a line with the axis of his body, the two wings of the pelvis being in the same horizontal (transverse) line. A flexible, graduated tape-line is to be preferred to the steel tape-measure. The foot being steadied by an assistant, the surgeon should put his thumb-nail against the line where it joins the ring, and push his nail into the skin just *below* the anterior superior spinous process of the ilium, pressing firmly up and back, the back of his nail resting upon the skin. In this way he obtains a fixed point, and he can obtain an exactly corresponding point upon the opposite side. Below, the measurement may be made from either malleolus, but the outer has the most defined extremity, and is generally preferred. In most cases, for some months after the close of the treatment there is some œdema about the ankle, which renders it necessary to use great care in determining the point of the malleolus. The thumb-nail of the opposite hand may be used for this purpose, resting vertically upon the skin (flat against the lower end of the malleolus).

There are a few sources of error which cannot be avoided. Occasionally the maleoli of the two limbs are of unequal length; and, in a very few rare cases, one limb is congenitally, or from defective growth, shorter than the other."

An Operation for Congenital Hare Lip in a Negro is reported in the *Trans. South Carolina Med. Assn.*, 1874, by Dr. R. W. Gibbs, Richland, "chiefly on account of the remarkable rarity of such arrests of development in the African."

Lewis Dow, aged 35 years, a full-blooded black, in this city (Columbia), was operated on by me nine days ago. The cleft involved the dental arch, and extended into the right nostril, its thick lips being widely separated, and making a frightful deformity, as well as affecting his voice very much.

After the mucous membrane had been separated along the alveolar border, and a little within the floor of the meatus, and the cleft had been extended a little deeper with sharp scissors, in order to vivify and make the angle more acute, it was found necessary to detach the lip extensively on both sides of the fissure, including the *columna*; and even then the deepest portions could not be brought together, so that a hole would have been

left, communicating between the nostril and mouth, through the notch in the bone.

I then decided upon what I have never seen done, as follows: I removed on the left, with a sharp bistoury, only a strip from the lower two-thirds of that lip—the incision was then extended upwards, but not through the mucous membrane, preserving all of that, and turning in its lateral portion, with which to make the posterior wall or floor, thus filling up the gap; I then found I had an abundance of flap, which, after being trimmed accurately, met the mucous membrane of the right side that had been detached at the beginning. It required four deep horse-hair sutures to make the adjustment. Three more deep and two superficial ones closed the labial fissure, no pins being used, and the result being as perfect as could be desired, except only a slight labial notch. There was no suppuration, and the two deepest horse-hairs were left in for four weeks, without the slightest irritation being produced. In fact, I could not find them when I removed the others, from the ninth to the fifteenth day.

Now, with regard to the infrequency of this congenital arrest of development *in the negro*, Dr. Darby* informs me that it is the only case he has ever heard of. I have seen but one in the mulatto, nor have I ever met with a case of *Congenital Talipes* in the unadulterated citizen of African descent.

I have taken the trouble to write to a few leading gentlemen in the profession, whom I thought apt, from their experience, to throw light on this interesting question. Prof. S. D. Gross replies as follows: "I have *never* met with a case of hare-lip among our colored people; nor, so far as I now recollect, with an example of congenital cleft palate. We have at least 35,000 blacks in this city (Philadelphia), and always a considerable number of colored persons at our clinics. During my residence in Kentucky, extending over a period of sixteen years, no case of hare-lip among the blacks or their descendants ever came under my observation."

Prof. P. F. Eve (Nashville) *thinks* he has "operated for hare-lip in the African; the cases are very rare, however."

* We find three members of the Association named Darby—C. S., D. B., and John T. To whom is reference made?—ED.

Prof. H. F. Campbell (Atlanta) says *never* in the pure negro, and but once in a quarter breed; nor in a professional experience of thirty-two years has he met with a single case of *Congenital Talipes*.

Prof. Hunter McGuire (Richmond) does not remember seeing hare-lip or cleft palate in the negro, and very rarely talipes, although he has a large professional experience, where the two races are about equally divided.

Prof. Gilmore (Mobile) has seen two cases of hare-lip (one of them with cleft palate), and two of talipes, in the pure breed.

Dr. Choppin (New Orleans) has seen two, or possibly three, cases of hare-lip, and Dr. J. D. Burns does not remember one in the negro.

[These are interesting statements from men of vast experience and accurate observation. We are, however, quite well satisfied that we *have seen* such cases. Just now we recall one of hare-lip with cleft palate, that lived in Petersburg, Va., in 1859; one with club foot, living in Prince Edward county, Va., and another living in this city.

When we read the statements above made, we went into the kitchen and asked the four (colored) servants living on the premises as to their observation. After defining terms as to *color*, hare lip, cleft palate, and club-foot, the following information was obtained: One of the servants "has a friend of *very* dark skin with hare-lip"—woman—living in this city; and she knew of a negro man who was likewise hideously disfigured; she knew no case of club foot in the *negro*, but did know of two "light brown skinned men" thus afflicted. Another of the servants knew a young colored boy (negro) who has his foot "twisted up into a lump—born so"—knew no case of hare-lip. The other two servants had *heard* of cases of hare-lip and club foot in persons of their color, but *knew* no instance.

Dr. Gibbs, in his paper, attempts no explanation of the rarity of either of these conditions. We would be glad to have synoptical reports on this subject from our friends.—ED.]

Chinese Medicines.—The *San Francisco Bulletin*, according to the *Eclectic Magazine*, speaking of the articles and compounds shipped to the Chinese physicians of San Francisco from their native country and used as medicines, says: "There seems to be just at the present time an extra demand for a venomous

serpent closely resembling the rattlesnake, of which hundreds are received constantly. A custom-house official brought a specimen of these cheerful-looking creatures to this office yesterday—a coiled snake about four feet long, fanged, and with hideous head-scales like a crest. How these animals are taken by patients of Chinese doctors is not known. *** Lizards are in nearly as great demand. These also are dried and sent over in packages, together with hundreds of loathsome things, all of which are consigned to the Chinese physicians, and used by them in their practice.”

Collodion in Herpes Zoster.—Dr. T. K. Holmes, Chatham, Ontario, in the August No. of the *Peninsular Jour. of Med.* (Detroit), in cases of herpes zoster, recommends protecting the affected surface with a thick coating of collodion, applied daily. He says that “it certainly gives almost instantaneous relief in many cases, and a pretty large number will make a rapid recovery without any other treatment.” To test the value of the collodion, of eleven cases recently under his care, three were treated with quinine, opium, arsenic, potassium iodide, and tonics internally, with benzoated zinc ointment, warm soothing lotions, poultices, and astringent lotions used in succession externally. They recovered in three, five and eight weeks respectively. All suffered acutely the whole time except when under the influence of opiates. But of the eight remaining cases treated by daily applications of collodion, three recovered in five days, four in six days, and one in seven days. In each, however, a certain amount of redness remained at the seat of the eruption for a few days, but they were all able to pursue their usual vocations without pain or inconvenience on the days specified.

Frequently Recurring Epistaxis Relieved by Ergot.—Dr. Andrew H. Smith, New York, relates the following case in the *N. Y. Medical Record*:

Mr. C, aged 37, civil engineer, applied to me in the latter part of May, on account of bleeding at the nose, recurring daily, and sometimes two or three times a day. The amount of blood lost each time was trifling, but the resulting annoyance

was very great. The patient, naturally of rather a delicate organization, was performing an excessive amount of mental labor, and his health had suffered considerably in consequence. Digestion was slowly and imperfectly performed, and he was much annoyed with flatulence, disturbing his rest at night.

Direct and rhinoscopic examination showed no abnormal condition of the nasal mucous membrane, except that the portion covering the septum on the left side was, for a part of its extent, unduly red.

A variety of astringents were applied locally by means of both the brush and the syringe, and such general treatment was resorted to as the symptoms demanded. This course was followed persistently for two weeks, when the general health had somewhat improved, and the congested appearance of the nasal mucous membrane, as far as open to inspection, had disappeared. Still the hemorrhage recurred as frequently as ever, being often apparently provoked by the very applications intended to prevent them.

I then prescribed the fluid extract of ergot, twenty drops to be taken three times a day. This was continued for ten days, with the effect of entirely restraining the bleeding from the time the first dose was taken. The medicine was then omitted, but in a few days the bleeding began anew. It was immediately arrested by a return to the medicine, and has not since returned, the drug being continued at gradually increasing intervals for nearly a month, when it was entirely discontinued.—*R. & L. Med. Jour.*, Aug. 1874.

The Influence of Inhalation of Chloroform on the Fœtus during Delivery.—Dr. Zweifel (Berliner Klinische Wochenschrift, May 25, 1874), observing that children born when chloroform had been administered to the mother had been frequently jaundiced, was induced to make some investigations to see whether the anæsthetic could be traced to the child, which might explain the excess of jaundiced children when the mothers were chloroformed.

He first searched for chloroform in the placenta. This was carefully washed and then cut up into small pieces and placed into a retort, and distilled by means of the sand-bath. There

was a perceptible odor of the vapor; but to be more certain he tested for it, and in every case a trace was found. He then proceeded to examine the urine of children whose mothers had been anæsthetized, and without exception found chloroform.

In one case, whilst the anæsthetic was being given to the mother, the foetal pulse suddenly became less frequent and the sounds scarcely audible. Delivery had to be hastened to rescue the child.

From the experiments made he came to the conclusion that chloroform inhaled by the mother passes to the child, and it is anæsthetized with the mother. As narcotism is contraindicated in children, Dr. Zwelfel intends prosecuting his investigations to see to what extent it can be given without injury to the child — *London Med. Record—The Clinic*, Aug. 15, 1874.

Proceedings of Societies.

RICHMOND ACADEMY OF MEDICINE.

July 2nd.—Dr. L. B. Edwards offered a resolution suggesting the organization, in connection with the Academy, of a

Medical Book and Journal Club—its plan of organization, &c., to be suggested by a committee. He argued in favor of it on the ground that medical men could then have at their command a full file of all the important journals published, while the expense, being divided among many, would be small to any individual. There are men too poor to take a single journal, but the cost of belonging to this organization would be less than the subscription to any one of the leading journals of the country.

Dr. J. B. McCaw, in reference to a somewhat similar suggestion made three years ago, said the proposed plan then was for the Academy to publish a yearly volume of Transactions, and to offer them in exchange with journals and Transactions of other Societies. But this plan was found to be impracticable, and failed. In regard to Dr. Edwards' suggestion, he favored it, provided the treasury could afford it.

Dr. Watkins suggested that the Young Men's Christian Association might be induced to keep these journals, subject to orders of the Academy.

Dr. F. B. Watkins reported a case resembling one of

Cerebro-Spinal Meningitis. While visiting a patient, he was consulted by a colored woman living on the lot, suffering pain and a feeling of oppression in the chest, and some stiffness of the jaw, for which he prescribed. Next day, learning that her bowels had not been moved for two weeks, gave her a cathartic, also valerian and assafoetida, believing at the time her trouble to be hysterical. Was *called* to her on third day, when she had opisthotonos, for which he applied spinal counter-irritation, gave calomel, opium, belladonna, and ergot, but she died. After catharsis induced in the beginning of the case, she was again constipated for four days—a fact which was overlooked at the time. The belladonna and ergot at one time seemed to produce some amendment. A large dose of tinct. lobelia (3iij—3iv) was given $\frac{3}{4}$ ths an hour before death, and the spasm was entirely relieved. Might not the constipation have excited this attack?

Dr. J. G. Cabell had recently treated a case of this disease with *ergot*, which produced the peculiar ulceration around the finger-nails, described by writers as resulting from its long use; there were also pustular eruptions on other parts of the body. He believes that blisters behind the ears contributed greatly to the patient's recovery.

Rev. Dr. Beltenheim, of this city, being present by invitation, was requested to open the discussion on the subject for the evening,

Cremation.* Some texts in the Old Testament would seem to indicate that it was practiced—at least to some extent—in ancient times (I Samuel, chap. xxxi: v. 12-3; II Samuel, chap. ii: v. 5; Amos, chap. ii: v. 1; Ezekiel, chap. xxxvii: v. —; Jeremiah —; Chronicles, —). At all events, the Bible does not oppose cremation. Yet Dr. B. felt a repugnance at the thought, which was no little increased by the perusal of Sir Henry Thompson's well known article. But it was a question for physicians to answer, and if it be fairly demonstrated that

* This full report of the discussion is given to comply with the expressed wishes of several subscribers not residents of the city.

the burial of corpses does actual injury to survivors, which could be avoided by cremation, then we should adopt the measure.

Dr. L. S. Joynes remarked that this will be a question of growing interest with increase of population. Already 82 cremation societies exist in Germany, and some cities have legalized the practice. Since Nature's law requires that corpses *shall* return to dust, which, after burial, usually results, according to authorities, in from two to five years, why should we allow them to be putrefying through this series of years, filling the atmosphere with noxious exhalations—alike offensive to smell and injurious to health? He remarked incidentally that he knew an instance in which the disinterment of a child, buried fifty years ago, was attempted; but neither the skeleton of the child nor the coffin could be identified, though the spot of burial was accurately known. Some earth a little lighter in color than that surrounding it was supposed to be the remains. That exhalations from burial grounds have long been regarded as noxious is well known. In London, even, the church-yard burials tainted the water and atmosphere, and caused Parliament to forbid further intra-mural interments. In Paris, the numerous interments, for centuries past, in the *Cimetière des Innocents*, occasioned so much discomfort and injury to the citizens as to cause other interments to be forbidden, and even to cause the removal of remains already there. In Philadelphia, 1872, there were over 4,000 burials within the city limits. And now in Richmond, with its rapid growth of population and extension of limits, the cemeteries may be said to be within the city. In such places, why are we not to look for a state of affairs not unlike those mentioned as occurring in Paris, London, &c.? Cremation removes these troubles. Besides, if cremation be adopted, there will be no necessity for burial grounds, and thus the space now devoted to them would be saved to the city. There are no injurious exhalations from properly built cremation furnaces. So much for the material aspect. As to the *moral* aspect, what can be more repugnant to feeling than the consciousness that the forms we loved so dearly are now *rotting* under the ground, offensive in odor, hideous to sight in their decomposing condition, and in reality food for worms? There is certainly more of true poetic sentiment in the "storied urn."

As to the so-called religious aspects, he did not believe such existed in the discussion of this question.

On motion, the subject was continued over to the next meeting.

July 16.—Dr. Edwards' attention having been called by Rev. Dr. Beltenheim to that portion of the Report of the City Board of Health regarding the *injurious effects upon pupils, &c. of the present Public School System*, he moved that a committee be appointed to consider the subject and report recommendations at next meeting—Adopted. Drs. Edwards, L. S. Joynes, R. T. Coleman, F. B. Watkins, and O. Fairfax were appointed.

In favoring the above suggestion, Dr. R. T. Coleman took occasion to speak of the terrible effects of June upon the health of children particularly. And yet, under the present schooling system, the examinations, &c. occur in June, calling for increased labor just at a time when the pupils, because of physical and mental lassitude, are in the poorest condition to apply their energies.

Discussion continued on

Cremation. Dr. Edwards did not propose to touch upon the religious, historical, or æsthetic views of the question. But in its medico-legal bearings, much may be said against cremation. In cases of suspicion of death by poisoning or violence, arising after funeral rites have been performed, if cremation be practised, there can be no possible opportunity of examining bodies; but if buried, they can be resurrected and examined. The possibility of *identification* is also destroyed by cremation—a thing of great importance to life insurance companies, as also to courts in establishing the force of wills, the rights of inheritance, &c.; and, again, in allaying the anxiety of those who, having heard of the death of a stranger among strangers, may have supposed the person to be their relative or friend. As to the question of economy of space, Dr. E., from statistics of Prof. Porter, showed how unnecessary the alarm. According to the authority mentioned, there is enough ground in the Middle States, Maryland and *old* Virginia to afford ample burial room for the world's population from the days of Adam to the present, as also for many years to come. Only the largest cities need ever be in-

terested in this view. In regard to them, the suggestion *may* be worthy of consideration, *as preferable to cremation* (for it is not so ridiculous as at first sight it might appear), whether or not at some future time existing cemeteries may not be turned to use as city parks. It is a sad commentary upon life that but few indeed of those now dying will be specially cared for or even remembered fifty years hence. Each of us no doubt is familiar with the statement that, in many of our towns and cities, streets are graded and houses built over places where human beings have been buried; yet who of us of to-day feels any concern about it? *If* sentiment does not revolt at the idea of human bodies being burned to ashes, and as such, in common with guano, manure, &c., used as fertilizers of the soil, it would certainly be less repulsive to adopt this suggestion, *if necessity compels either measure*. To respect the feeling of the few who may still keep fresh in mind and heart the memories of their friends, they should be allowed to remove such of the sacred dust as remains to other cemeteries established further out on the suburbs. With the rate of growth of thrifty cities, they will be in need every fifty years of such parks as have been suggested; and usually, too, at just about the places where exist what will then be *old* cemeteries. The usual sites of cemeteries are upon elevated and healthy grounds; and are also generally so laid off in avenues and walks as would involve but comparatively little expense in further adapting them to the purposes indicated. As to the condition of interments, we have been told that generally, after the lapse of a dozen or more years (allowance being made for the kind of box or case in which bodies are deposited), scarcely a perceptible trace marks even the spot where they were buried. As to effect upon health of burial grounds, it seems probable that the danger has been overestimated. Compare the sick and mortuary statistics of such cities as London, Paris and New York, which have cemeteries within their limits, with those of smaller cities where cemeteries are only upon the outskirts—the percentage in larger cities is not so much greater that the excess cannot be more reasonably attributed to other causes—such as over-crowding and filth in tenement houses, living in cellars, effluvia from imperfect sewers, super-saturation of soil and atmosphere with the products of decomposition of

large amounts of refuse vegetable and animal matter, &c. In deciding this question, it is not altogether improbable but that something of preconceived opinion has biased judgment. Dr. E. has put himself to some trouble to inquire into this question as it affects Richmond; and while the opportunities for investigation have been necessarily on a small scale, still the results may be worthy of some consideration. St. John's church-yard cemetery, on Church Hill, as is well known amongst us, is quite filled with interments, and has been used as a cemetery for 100 years or more. It occupies about eight square acres. The opposite sides of the streets, east, north and west especially, are quite thickly built up with residences and stores, in which parties sleep, and in the summer time with windows raised. The streets immediately surrounding the cemetery have been dug down, leaving the grave-yard elevated some five or six feet above the level of the streets, but on a level with which the houses on the opposite sides of the streets—about 50 feet wide—are mostly built. A brick wall surrounds the cemetery, but in wet weather water oozes through some of the crevices and under the wall. Inquiry of several of the citizens of the neighborhood has failed to develop any fact or belief that that section of the city is at all more unhealthy than other portions, nor are there any diseases *peculiar* to it. The same remark applies to the neighborhood of Hollywood Cemetery, which covers a much larger area, but immediately around which there are not so many residences. As to the impregnation of cistern and well water with the gases and soluble materials of decomposing corpses, there need be no longer any just cause of alarm, since all the larger cities are abolishing cisterns and wells, and substituting and perfecting the hydrant system of supplying water to residences, &c., from reservoirs which are filled by streams rising above, or at least remote from the respective cities. The mains and metallic pipes, practically speaking, do not absorb the gases from even the surrounding soil. Dr. E. also alluded to the chemical constitution of the atmosphere of vaults and burial grounds of London, as reported by an English authority whose name is just now forgotten, which had at least a negative value.

Dr. J. G. Cabell could see no practical value in the discussion, which was, besides, perfectly revolting. There can be no

possible necessity for adopting cremation for centuries, if ever at all.

Dr. C. Tompkins thought this discussion had a practical bearing in that physicians, to some extent at least, mould popular opinion on such topics. Other similar Societies, besides, are discussing the question. He incidentally remarked that a private letter from a friend in Alaska Territory informs him that cremation is practised among the native Indians there.

Dr. W. W. Parker said that the thought of cremation was far less horrible to him than that human bodies are to be placed in the ground to rot. He believes, however, that burial was of divine origin, and perhaps intended to instill the idea of a final resurrection.

Dr. L. S. Joynes said the medico-legal arguments against cremation had their weight so far as they went; but how rarely are disinterments for such purposes required? If cremation were the custom, the police would probably be more careful than they now are in regard to suspicious cases. Then the necessity for resurrections, were they even possible, would less frequently be required. He was surprised that Dr. Edwards had paid so little respect to the many indisputable statistics which show peradventure the injury to health of certain cemeteries. Dr. J. mentioned several instances in which the immediate effect of the effluvia from burial grounds, where the soil was super-saturated with the products of decomposition of human bodies, had undoubtedly produced disease, and even death. Convinced as he is as to the injury to health of certain burial grounds, he thought the maxim of law might be applied here, that it is better for *one* guilty person or murderer to go unpunished (because the victim has been cremated) than that thousands of the innocent community should be allowed to suffer by the offensive and poisonous gases developed in cemeteries. As combatting the testimony of the English chemical authority referred to by Dr. E., there were a number of instances where persons employed in opening old vaults, or even in digging new graves by the side of old ones, were either killed or seriously affected by the noxious gases.

August 6.—Dr. J. C. Deaton was elected Asst. Secretary, Dr. W. A. Thom having moved from the city.

The Committee on the suggestions regarding *Public Schools*, &c. in the "Report of the Board of Health," recommend their endorsement; also that schools should open in September and close by the first week in June; also that physicians should be on the school board as advisers in health questions. Report adopted, and copy voted to be sent to the Mayor.

Drs. Edwards, McCaw and Watkins were appointed a committee to suggest plan of organization of a *medical journal and book club*. [The propriety of such organizations might be suggested for other cities and towns where individual physicians are unable to subscribe for all the medical journals that should be supported. Especially does the plan suggest itself to small towns where there are only a few physicians.—ED.]

Dr. W. W. Parker reported a case in which the

Umbilical Cord Pulsated Several Minutes after Birth of child and placenta. During a labor pain, the mother sat upon a bucket, into which the child and placenta were delivered; the child gave evident signs of life for a few minutes by motion of its lower extremities, but died in a short while.

Dr. F. B. Watkins suggested that this was literally a case in which a child "kicked the bucket." As to the pulsation of the cord, he had noticed similar occurrences.

Dr. Joynes thought the pulsation resulted from action of the foetal heart, which ceases when respiration is established.

Dr. J. B. Coakley thought it possible that habit had some influence in continuing the pulsations.

Dr. W. W. Parker reported a case of

Acute Phthisis in a young married woman; which ran its course in 4 or 5 weeks.

Dr. J. B. Coakley attended a chambermaid, aged 40 years, who had as the earliest suspected sign of disease several pulmonary hemorrhages during two or three days, accompanied by a troublesome cough, with muco-purulent expectoration—died on 14th day from commencement of attack with all the usual signs of galloping consumption.

Effect of Street Sprinkling on Public Health—the subject for discussion. Dr. M. L. James said, on the one hand the

measure of street sprinkling contributed to our personal and household comfort, and to some extent to the mercantile interests of the city—many goods being liable to be injured by the dust, and some to be ruined. It had been demonstrated, too, by Tyndall and others, that the dust of cities, as was to have been expected, contains much of organic matter, and some of this organic matter is probably the source of disease. On the other hand, the watering carts as they *are used*, supply just enough water to destroy the disinfecting power of dry dirt, and keep the organic matter lying on our thoroughfares, frequently to the amount of several cart-loads to a square, in a condition most favorable for generating noxious gaseous exhalations, especially if overshadowed by dense foliage, and probably developing the organic germs of some of our most deadly epidemics, while they never supply water enough to wash off these impurities, as the summer showers do. He referred to the grand efficacy of dry dirt as a disinfectant; characterized it as nature's vicarious disinfectant with the showers, and called attention to the seemingly harmless influence of dust with persons for days deluged in its clouds, as in the case of soldiers on a march. He was entirely satisfied that street sprinkling ought to be preceded by *thorough daily sweepings*.

Dr. Joynes recounted some of the inconveniences of dust, which, moreover, causes sore-eyes, bronchial troubles, &c. In Proctor's article, "*The Dust we Breathe*," is the statement that, besides mineral matter, there are animal and vegetable substances in a stratum of air usually about five feet above the surface, which is above the level affected by sprinkling from water-carts. But rain-falls bear this stratum down and purify the air. Even were it borne down by watering the streets, the system practised in our cities by water-carts would still be insufficient; for the dust, &c. on unwatered side streets, private lots and unoccupied squares will be transported by breezes to the watered streets. True, street sprinkling reduces temperature of the air, but as practised, as Dr. James has pointed out, mud-puddles are left, while decomposition of organic matter necessarily upon the street surface is favored by being kept so continually wet, unless submerged. It would be less injurious to health, and certainly more conducive to comfort and pleasure if

the carts distributed the water in more moderate quantity, through very fine sprinklers, and more frequently. According to circumstances, disinfectant solutions might be used instead of water alone; or it might be well to use the compound prepared and suggested by Mr. W. J. Cooper, which can be scattered over the surface of the street. This preparation is a compound of the chlorides of sodium, calcium, and magnesium, which is deliquescent and deodorizing, and which, moreover, will not injure clothing, &c. In conjunction with sprinkling, street sweeping should be practised.

Dr. J. G. Cabell preferred street sprinkling with its attendant evils to doing without it. As for the case of blood-poisoning which Dr. J. attributes to watering the street, it finds a readier explanation in the proximity of the dock and Shockoe creek to the foundry mentioned.

Dr. J. B. McCaw thought the views of Drs. Joynes and James correct. He mentioned that in certain Belgian cities street sprinkling is effected by means of a line of finely perforated pipes laid along the curb-stone. By opening the plug the entire city is watered at once and well. The streams of water are thrown, of course, towards the centre of the streets.

Reports of Committee on Public Health.—(Drs. L. S. Joynes, J. G. Cabell, and F. B. Watkins).

During May the health of the city was unusually good, and the mortality (see *Monthly*, July) far below average. Aggregate mortality May, 1873, was 128.

In May, 1873, there were 13 deaths from intestinal diseases (6 cholera infantum); in 1874 there were only 3 (2 cholera infantum)—the explanation of which may be absence of extreme heat during the month, with the exception of a few days.

From reports of 18 physicians, it is noted that there were, of *scarlatina*, 5 cases; *measles*, 1—said to be the third attack in the same subject; *diphtheria*, 5; *pertussis*, 15 or 16 (not including old cases)—only five gentlemen reported new cases; the epidemic may, therefore, be supposed to be about over; *typhoid fever*, 4; *typho-malarial fever*, 2; *puerperal fever*, 1, terminating favorably under quinine and opium; *dysentery*, 47, beside an indefinite number indicated by the term “several,” of which only

1 died—one reporter treated all his cases with “salines;” *diarrhœa*, 41, beside “several” slight cases; *cerebro-spinal meningitis*, 3; *pneumonia*, 13, of which 2 were consecutive to pertussis; *malarial fevers*, 118 or 120, beside an indefinite number reported as “several.” One reporter thinks that in most of the cases of sickness, malarial influence was felt. Another notes several cases of what he terms *malarial saturation*. As to the type of cases, 84 were intermittent, 17 remittent, of which one was complicated with hæmaturia (see *Monthly*, July, p. 206). Six cases of the intermittent type were of the form so frequently observed about a year ago, in which pain in the chest-walls was a prominent and troublesome symptom. One gentleman reported an “unprecedented number of cases of primary syphilis with hard chancre.”

During June, the mortality (see *Monthly*, August), while greater than in May, was less than in June, 1873, when there were 209 deaths. Contrary to the rule, the percentage white mortality during June, 1873 and 1874, was greater than that of the negro—due, in great measure in both instances, to the greater mortality from cholera infantum among the whites.

Notwithstanding the very high temperature during a part of June (during which month the average temperature was about $2\frac{1}{3}^{\circ}$ higher than June, 1873), there was no death from sun-stroke, nor any during 1873. In fact, no marked effect was exhibited by the summer heat in the causation of nervous diseases during either year.

For the first half of the present year the aggregate mortality was 784—216 less than for the same period, 1873.

Reports from 17 physicians received. None of them reports any case of measles, scarlatina, or croup; but the physicians have used such general terms, as “a good many,” “several,” &c., in their reports to the Committee, that no definite or reliable statistics can be given of the prevalence of other diseases.

Among interesting cases reported, is one in which

Oxygen Gas was used. Male; age, $3\frac{1}{2}$ years; had a *complete closure of œsophagus* from the accidental swallowing of concentrated lye. He remained 5 days and 4 nights absolutely without food or drink; was so exhausted by the starvation that Dr.

Hunter McGuire (who reports the case) declined making any effort to open the tube until the strength should be partially restored. For this purpose, recourse was had to enemata of milk, wine, &c., and to the inhalation of oxygen gas—the latter agent having been suggested by Dr. J. Knox, the attending physician. Its inhalation brought color to the face and lips, and gave force and volume to the pulse at once. When its administration was stopped, the boy in half an hour became pale and exhausted to almost the last degree. While he was under its influence on the second day, Dr. McG. performed the necessary operation with success.

Puerperal Convulsions.—Dr. J. B. McCaw reported a case occurring at the 8th month. There were 12 or 13 convulsions before delivery, which was expedited by dilatation of the os uteri. After delivery there was a short period of consciousness, followed by return of violent convulsions lasting 24 hours. Treatment, tinct. verat. virid., gtt. x, every hour or two, with ice bag to head. Patient slowly rallied, and the convulsions finally ceased. Power of speech was not regained for 4 days.

Dr. C. A. Byrne also reported a case; but convulsions did not occur for 36 hours after delivery. Treatment, free and repeated venesection, opiates and blisters. Patient recovered with slight paralysis, which had nearly passed away at the date of report.

Dysentery.—One reporter, who has seen a good deal of dysentery (marked, as he says, in nearly every case by a distinct typhoid tendency), in addition to “the mercurial and saline treatment usually adopted,” has been unable to manage the disease without the free use of *quinine*—20 to 30 grains daily for an adult; and he adds, “In no case of dysentery have I failed to see the beneficial effects of quinine.”

[It is proper to remark that we suppose the reporter refers to practice in this locality. But even then quinia is by no means a *sine qua non*; for while it may be used more generally than we suppose in this class of cases, we are certain that many as satisfactory results have occurred where no antiperiodic was used.—ED.]

Another reporter speaks of the habitual use of quinine, though in less pointed terms. He also uses calomel with very

satisfactory results in one-tenth grain doses for adults—one-twentieth for children—repeated hourly. Hope's mixture and quinia are afterwards given.

The two cases of *congestive fever* reported are interesting in that both assumed the *hemorrhagic form*. Neither particulars nor result of one case is given. The other, an adult male, had congestive chill; on third day afterwards, hemorrhage from kidneys, bowels and nose, with purpuric spots over entire body. Large doses of quinine, stimulants and potassium bromide were used without effect. Death on 5th day by coma from effusion.

Book Notices, &c.

Essays on Conservative Medicine and Kindred Topics. By AUSTIN FLINT, M.D., Prof. Principles and Practice Medicine, Bellevue Hosp. Med. Col., N. Y. Philadelphia: Henry C. Lea. 1874. pp. 214. 12mo. Price \$1.50. (For sale by Messrs. West, Johnston & Co., Richmond).

This is an exceedingly interesting and instructive little volume. The Essays embodied in this permanent form were originally published in different medical journals. Their intrinsic value fully entitles them to the form in which they now appear, and the *book* is, unquestionably, an admirable contribution to medical science and literature, and worthy of a place in every physician's library. It clearly marks an advance in medicine, and the *name* of the author invests the views, so forcibly presented, with a weight and authority that must command respect.

The several Essays treat of "Conservative Medicine" as applied to Therapeutics and Hygiene, as also to "Alimentation in Disease." The eighth Essay, with which the book closes, on the "Divine Design as Exemplified in the Natural History of Disease," cannot fail to interest even the general reader; indeed, the whole book has a popular tone which will give it a charm to others than the medical profession.

It is pleasant to find a *Doctor*, who, amid the drudgery and toil of his strictly professional engagements, can give to the

world a work bearing the impress of such refinement in style, such breadth of literary culture, and withal so full of advanced thought and suggestion as we find in the gem of a book before us.

Annual Report of the Board of Health of the City of Richmond for the year 1873. J. G. CABELL, M. D., President.

From this report it appears there were registered 1,789 births and 2,037 deaths—showing an excess of 248 deaths over births. Of births, 955 were white and 834 colored; of deaths, there 977 white and 1,060 colored. The population of the city of Richmond is 60,705: whites, 33,492—colored, 27,213. Births 28.5 to 1,000 whites, and 30.5 to 1,000 blacks; deaths 29.1 to the 1,000 of whites, and 38.9 to the 1,000 of blacks—showing an excess of deaths over births among whites of .6 (six-tenths of one) in the 1,000 white population, and an excess of deaths over births among the blacks of 10.4 in the 1,000 black population.

These facts and figures go to show that the black mortuary list is very much larger—say 9.8 in the 1,000—than the whites, and to account for the rather “bad show” that the “comparative health” of Richmond makes with other cities. Phthisis is the most fatal of the diseases recorded—showing deaths 91 whites, and 148 blacks. The ratio of deaths is strikingly illustrated in the two races, viz: 2.7 deaths of whites, and 5.5 deaths of blacks in the 1,000 of population—100 per cent. greater among blacks than whites from phthisis.

The suggestions and counsel urged by this report in relation to the “public schools and hours of study” must commend themselves to the thoughtful, not only in Richmond, but in every portion of the land. It is impossible to overestimate their value and importance. It behooves not only the Legislature of this State, but of every State, to consider carefully the advice here so ably set forth. The able and distinguished President of the Board of Health has the gratification of knowing that his views are fully endorsed by the unanimous vote of the Richmond Academy of Medicine.

F. B. W.

Editorial.

STATE BOARD OF HEALTH OF MARYLAND.

We are glad to know this Board has been fully organized and is at work. We will most cheerfully lend it any assistance in our power. The fortunate selection of the eminent and energetic physicians composing the Board, namely, Drs. Nathan R. Smith, J. Robert Ward, C. W. Chancellor, Charles M. Ellis, and E. Lloyd Howard, is in itself a guarantee that the duties will be efficiently performed, and that the results will redound to the good of the people of the State and the interests of science. It is to be hoped that the profession and citizens of Maryland generally will give their cordial support.

The Board at this time is specially desirous of collecting all facts bearing upon the subjects of malarial and typhoid fevers, and phthisis—their relations to conditions of soil and climate, vegetation, drainage, etc.—their relative intensity in different sections and seasons. Any *facts*, as well as *opinions*, which may be communicated by physicians of the State, will be acceptable.

The Board also desires to establish regular correspondence with every section of the State, and wishes lists of physicians and others in each district or county of Maryland who take an interest in sanitary or in statistical matters. Any one who will consent to act as a regular correspondent of the Board, is requested to communicate the fact, with full address, and blank forms will be sent. The Board hopes shortly to perfect a plan for a thorough registration of all births, marriages, deaths, etc., throughout the State.

All communications should be addressed to Dr. E. LLOYD HOWARD, Secretary, No. 51 Cathedral Street, Baltimore, Md.

NEW JOURNALS.

We have received the July and August numbers of the *Psychological and Medico-Legal Journal*. It is edited by Dr. Wm. A. Hammond, assisted by Dr. T. M. B. Cross. This is a *new series* of the "Psychological Journal," but is now to be a monthly, of about 70–5 pages. Price \$5 yearly; single number 50 cents. If it meets with favor, it will be considerably en-

larged with the January (1875) number. As its name implies, much attention will be paid to medico-legal questions. It will contain, beside original communications and reviews, the proceedings of the New York Neurological and Medico-Legal Societies. It will not give short abstracts of articles appearing in foreign journals; though occasionally important memoirs will be translated and published entire; nor will there be an editorial department. Notwithstanding all this, the two numbers issued are very readable and instructive, though we must dissent from some of the suggestions made regarding *Morbid Impulse*, to which we may refer in a subsequent issue. The paper, however, on the *Effects of Alcohol upon the Nervous System*, being the inaugural address of Dr. Hammond on assuming the Presidency of the N. Y. Neurological Society, is a very valuable contribution, as is also the one by Dr. Cross on *Sciatica*.

The Louisville Medical Reporter is the title of a 20 page weekly journal, edited by Dr. J. L. Cook, of Henderson, Ky.—Dr. Jas. M. Holloway, of Louisville, associate editor—that has made its appearance since our last. Though bearing the title of *Louisville Medical Reporter*, it yet seems to be published in Henderson, Ky. Price \$3.50 a year, \$1.75 half year, \$1 three months. We have received only the first number (August 6), which we trust is not a fair specimen of what it will be, since nearly one-third of the entire number is devoted to an advertisement (?) of Dr. Gaillard and his *Weekly*.

The Archives of Dermatology is the title of a 96 page quarterly that is to appear October, 1874—L. D. Bulkley, A. M., M. D., editor; G. P. Putnam's Sons, Publishers, New York. Price \$3 a year; single number \$1. Dr. Bulkley's ability and energy are so well known that we anticipate in this a journal of great value and learning, which, we are informed, "will not be exclusively for specialists, but will contain such practical material as will make it a useful guide for the general diagnosis and treatment of cutaneous and venereal disease."

RICHMOND PHARMACEUTICAL ASSOCIATION.

At a meeting of this Association, held August 13th, the following members were appointed delegates to the Annual Convention of the American Pharmaceutical Association, to be held

in Louisville, Ky., September 8th, 1874: Hugh Blair, Polk Miller, T. Roberts Baker, Ira W. Blunt, and Henry Bodeker.

This local Association is composed of the leading druggists and pharmacists of the city, and is a live, active organization. There may be some, but we know of no reliable apothecary in the city who is not a member. Its influence in this community is promotive of good. Its semi-monthly meetings are made attractive and valuable by the exhibition of new preparations, the reading of original papers, and the discussion of important questions in pharmacy, &c., in which something instructive is always said.

We would be glad if all our Southern cities had such Societies. We take the liberty of saying that any desired information looking to the organization of similar Associations, will be most cheerfully given by letter addressed to the Secretary, Mr. T. Roberts Baker, Richmond, Va.

Typographical.—In Dr. Hyatt's report, August No., p. 268, line 7 from top, read *ten* instead of "two." We regret these typographical errors even more than the authors of papers, and will in the future try to avoid them. However, in comparison with our exchanges, our columns, as a rule, are as free of such errors as most of them.

In reference to these errors, the following conversation occurred in our office between a big-headed ten-year old chap while we were in humor to *talk* about them:

Editor (decidedly). "What's your name?"

Boy. "Gus. W——."

Editor. "Where do you live?"

Boy. "Mr. Furgsen's & Reddy's."

Editor. "What do you do?"

Boy. "I'm a printer's devil, but some say I'm a devil of a printer."

We said nothing more except to very politely request him to come for the proof-sheets in the afternoon.

The Medical Society of Virginia will convene at 11 A. M., Tuesday, October 13th, 1874, in Abingdon.

Physicians of Virginia should respond promptly to the circular of the Western Lunatic Asylum.

A great deal of matter which had been prepared for this issue is crowded out.

Obituary Record.

DR. HENRY C. STEPTOE died in Lynchburg, Va., July 30th, 1874, aged 53 years.

Drs. Blackford, Latham, Payne, Walker, Thornhill, and Christian were appointed a committee on the part of the Lynchburg Medical Association, July 31st, to draft resolutions, which are as follows:

Resolved, That while we feel and lament the great loss sustained by the profession of our city, and the friends to whom his life was devoted, we humbly bow to the Divine will in this affliction, and acknowledge the goodness that sustained him in his painful and fatal illness, and enabled him to complete his earthly career, as he had long lived among us, strengthened and consoled by religion, and constantly enjoying the love and tender regard of family and friends.

Resolved, That in his relations with, and conduct towards his professional brethren, illustrated by a long and active career, he has left us an example worthy of imitation.

Resolved, That we tender to his bereaved family our most sincere and heartfelt sympathy in their sorrow.

Resolved, That a copy of these resolutions be sent to his family, and be published in the Lynchburg papers, and the *Virginia Medical Monthly*.

Resolved, That the members of this Association attend in a body the funeral of our late associate this afternoon, at 3 o'clock.

Petersburg (Va.) Mortuary Statistics.—We are glad to have reason to hope that, with the recently changed political government of Petersburg, we may be able to furnish regular mortuary statistics of this city, as of Richmond, Norfolk, and Lynchburg. For the accompanying mortuary statistics for July, we are indebted to Dr. J. Herbert Claiborne, of that city, the population of which may be estimated at about 18,000, of which, perhaps, a small majority are colored.

Accidents, 2 whites, 1 colored; congestion of brain, 1 w., 0 c.; child-birth, 0 w., 2 c.; cholera infantum, 8 w., 0 c.; consumption, 3 w., 3 c.; debility, old age, &c., 2 w., 1 c.; dentition, 0 w., 4 c.; diarrhoea, 2 w., 5 c.; dropsy, 1 w., 1 c.; dysentery, 3 w., 3 c.; typhoid fever, 1 w., 1 c.; heart disease, 1 w., 1 c.; scrofula, 0 w., 1 c.; still birth, 3 w., 0 c.; thrush, 1 w., 3 c.; whooping-cough, 0 w., 2 c.; unknown, 13 w., 18 c.

Virginia Mortuary Statistics for July, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCBURG.			
Health Officers.....		Dr. J. G. Cabell.				Dr. W. M. Wilson.				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		43	34	55	48	18	31	17	24	9	10	9	15
Number still born.....		6		9		Color not given, 6				1		2	
Ages. Ages unknown not calculated.	Under 1 year.....	28		33		Color not given, 32				Color not given, 21			
	“ 3 years.....	8		24		“ “ “ 13		“ “ “ “		“ “ “ “		“ “ “ “	
	“ 10 “.....	2		6		“ “ “ “ 8		“ “ “ “		“ “ “ “		“ “ “ “	
	“ 20 “.....	2		4		“ “ “ “ 3		“ “ “ “		“ “ “ “		“ “ “ “	
	“ 30 “.....	5		13		“ “ “ “ 3		“ “ “ “		“ “ “ “		“ “ “ “	
	“ 50 “.....	13		12		“ “ “ “ 16		“ “ “ “		“ “ “ “		“ “ “ “	
	“ 70 “.....	14		7		“ “ “ “ 9		“ “ “ “		“ “ “ “		“ “ “ “	
	“ 80 “.....	4		3		“ “ “ “ 2		“ “ “ “		“ “ “ “		“ “ “ “	
	“ 100 “.....	1		1		“ “ “ “ 3		“ “ “ “		“ “ “ “		“ “ “ “	
	Over 100 “.....	...		...		“ “ “ “		“ “ “ “		“ “ “ “		“ “ “ “
Most frequent Causes of Death.	Accidents, &c.....	1		3		1		1		Color not given, 1			
	Apoplexy.....	.....		.....		.....		2		“ “ “ “			
	Bowels & Stom., Cong. & Infl. ....	.....		.....		1		.....		“ “ “ “		
	Cancer.....	3		1		1		.....		“ “ “ “		
	Cholera Infantum.....	18		8		2		8		“ “ “ “			
	Consumption.....	5		12		8		.....		“ “ “ “		
	Convulsions.....	2		5		1		.....		“ “ “ “		
	“ Puerperal.....	1		2		.....		.....		“ “ “ “
	Dentition.....	.....		4		.....		.....		“ “ “ “
	Diarrhœa (Acute & Chronic).....	7		15		8		10		“ “ “ “			
	Diphtheria.....	.....		.....		.....		1		“ “ “ “			
	Dysentery.....	12		8		3		1		“ “ “ “			
	Epilepsy.....	.....		.....		.....		.....		“ “ “ “
	Fever, Conges. & Pernic.....	.....		1		3		.....		“ “ “ “		
	“ Intermitt. & Remitt.....	1		.....		1		1		“ “ “ “			
	“ Typhoid.....	3		2		1		1		“ “ “ “			
	Heart Diseases.....	1		1		1		1		“ “ “ “			
	Hydrocephalus.....	.....		.....		1		.....		“ “ “ “		
	Inanition, Old Age, &c.....	5		8		8		.....		“ “ “ “		
	Meningitis.....	1		2		.....		.....		“ “ “ “
	Paralysis.....	1		.....		1		1		“ “ “ “			
	Peritonitis.....	.....		.....		1		.....		“ “ “ “		
	Pneumonia.....	.....		.....		1		.....		“ “ “ “		
	Pyæmia.....	1		.....		1		.....		“ “ “ “		
	Small Pox.....	.....		.....		3		3		“ “ “ “			
	Syphilis.....	1		.....		.....		1		“ “ “ “			
	Whooping Cough.....	1		2		1		8		“ “ “ “			
		Census taken in February, 1874.				Population is estimated.				Population is estimated.			

Dr. Hays

VIRGINIA MEDICAL MONTHLY.

VOL I. RICHMOND, OCTOBER, 1874.

No. 7.

Original Communications.

ART. I.—*A Certain and Easy Way of Fastening a Catheter in the Male Bladder.* By HUNTER MCGUIRE, M. D., Professor of Surgery, Medical College of Virginia, Richmond.

Those surgeons only who have tried it, know the difficulty of securely retaining a catheter in the bladder.

Holt's self-retaining or winged instrument is not reliable, as the wings frequently fail to keep the catheter in its place; it is the source sometimes also of a good deal of vesical irritation.

Sir Henry Thompson suggested the use of small strips of adhesive plaster placed along the side of the penis. Threads running from the ring in the catheter, and fastened to the strips of adhesive plaster, secured the instrument in the bladder. The plaster, however, is liable to become detached by the frequent changes in the size of the penis.

Tying a band of linen, tape, gum-elastic, &c., around the penis, behind the corona, and fastening the catheter to the band by means of threads is objectionable. The band may strangle the penis in case of erection, or slip off when the organ is flaccid.

One of the best devices is of French origin, and consists of flat bands of soft rubber, arranged to go over the head of the penis, as a muzzle goes over a dog's head. That portion in front of the meatus is perforated with a small hole, which holds the instrument passed through it very firmly. It is difficult, however, to so adjust the pressure of the strap surrounding the body of the penis as not to exert injurious pressure in case of erection, and at the same time to have it tight

enough to prevent the catheter from slipping out, when the organ is flaccid.

I have lately resorted to the following method in three cases in which I have had occasion to fasten the catheter in the urethra: The catheter having been introduced, the penis and testicles are carried through a common ring pessary, which should be three or four inches in diameter, or large enough to avoid any pressure upon the penis and scrotum which it surrounds. The pessary should then be secured in its place in the following manner: Carry a single turn of broad tape around the hips and fasten it in front; let the tape pass just below the crest of the ilium on each side. Take another piece of tape about a yard long, and fasten one end of it to the circular band just above the trochanter; carry this piece along the groin to the pessary; take one or two turns of the tape around the pessary, and then carry the cord under the thigh, and up behind the buttock to the circular tape, to which it is to be tied. The same process is to be repeated on the opposite side. The ring is thus held securely against the pubes. After this pass two strong threads through each eye of the catheter and tie them to the ring, one on each side—one in front of the penis, and one behind the scrotum.

I have found that the india-rubber catheter is much better than the gum-elastic instrument, if it is to be retained for any length of time in the bladder. I have seen a pure caoutchouc catheter worn for a month without being incrustated with urinary salts, the instrument being clean, smooth and sound when removed.*

I have had made, for use with this catheter, a silver tube about an inch in length, slightly tapering to fit accurately the free end of the soft rubber catheter. This tube has four small rings soldered to its extremity—one on each side, like those attached to an ordinary silver catheter, and one in front and one behind. The threads or tapes fastening the catheter to the pessary are tied to these rings.

* These soft gum catheters can be obtained of Messrs. Meade & Baker, of this city.

ART. II.—*The Study of Malaria.* By ALFRED G. TEBAULT, M.D., President Medical Society of Virginia, Princess Anne County, Va. (Continued from September No.)

As vegetable remains are found in most paludal situations and often in great abundance in intertropical countries, the opinion very naturally prevailed that an emanation of putrid materials was the morbid cause. These places are not only notorious for the growth of the coarser plants, such as sedges and rushes, and for the propagation of fungi and infusoriæ, but are infested with countless myriads of insect life, and are often the abodes of ophidians and batrachians; from which fact many persons ascribed an additional intensity to the effluvia from the death and putrefaction of the animal forms that inhabit them. But since none of the gaseous productions of putrefaction, whether from animal or vegetable matter, in an etiological view, can be proved to give rise to any form of fever, it was promulgated that the putrid particles themselves partook of the nature of a ferment capable of communicating a correspondent change in analogous matter. This theory, from its simplicity and accord with the prejudices of mankind, seemed destined to triumph till subjected to a careful scrutiny. Now when all the well ascertained causes of malaria are duly considered, they will be found to be more favorable for the promotion of vegetable growth than for putrefaction; and hence also decayed organic remains will appear at best only entitled to rank among the physical agents of malarious production. Thus no ague has ever been traced to manure heaps in active fermentation, or in the winter to an accumulation of vegetable matter, however subject to heat and moisture.

With regard to the effluvium from putrid animal substances, some crude opinions still exist. In the past generation, some authors, among whom are Bancroft and Chapman, stoutly denied such to be primarily productive of fever, thus assuming an attitude that required much independence of thought, as it was in opposition to the general opinion of all past ages, which associated the repulsive fetor of putrefied animal matter with a morbid agency over febrile pestilences. The embellishments of history and the charms of poetry, Thucydides and Lucretius, have been invoked in support of the popular belief, which after

all appears to be founded in delusion. A complete and unanswerable objection to it is furnished by the health enjoyed by the operatives at the knackeries at Montfaucon, near Paris, and elsewhere. According to Montfalcon and Poliniere, nothing is better established than that the knackeries are not insalubrious, and the principle, they declare, holds good as to the emanations of all putrified organic remains.

In further proof, they have seen women at Montfaucon who nursed, *des enfans superbis*. Parent Duchat  t confirms these statements, and adds, the workmen were remarkably exempt from disease during the prevalence of the cholera in Paris. The same conclusions may be arrived at from a visit to our own *abattoirs*, on beholding the general robust and healthy appearance of the butchers. Added to this testimony, no well authenticated and invariable sequence of fever to animal decomposition has ever been adduced, although many have no doubt attempted it, but always upon insufficient data. Thus it has often been alleged that putrid fish, especially when not well salted, has caused fever, and particularly the yellow fever. The coincidence of the fish and the fever as to time is, from the good authority cited in such cases, incontestable; but all have failed to trace an indisputable connection between the decayed fish, merely considered as such, and the fever. Besides, we have enjoyed ample facilities to arrive at the truth in this particular. The fishermen and others who sleep on our beach and river shores, nightly exposed in the months of August and September, to the abominable stench of putrid fish and their offals, and those persons engaged in the offensive manufacture of fish guano, far from being victims of fever, are rarely sick. Further inland the large quantities of fish now used as manure do not cause insalubrity. Therefore, decomposed fish is insufficient as a cause of fever, unless it becomes a suitable nidus under certain circumstances to foster some peccant element.

Cemeteries are no longer the holy grounds of medi  val times, but are regarded as loathsome beds of diseases. With this belief and the horror that their vicinage inspires, it is even held by some a heresy to oppose cremation. Other considerations besides those of fever, demand the location of cemeteries in isolated places. It is well known that the gases, consisting

mostly of sulphuretted hydrogen, when suddenly let loose from the abdomens of exhumed corpses, have asphyxiated numbers, and have been the cause of death, or at least of awful exhaustion. These chemical gases, even when much diluted, may seriously affect the neighborhood, by inducing depression of spirits, vertigo, fainting, tremors, derangements of the digestive apparatus, and cacæmia. And none can fail to see that this depression of the vital powers is sufficient to favor the action of exciting causes in developing a train of events which may lead to fever.

The effluvia from the carnage of the battle-field and of sieges, to which remotest ages have attributed pestilence and death, can scarcely be dis severed from attendant public distress, want, famine, human filth and crowding, fatigue, loss of sleep, and exposure to wet, cold and insolation. The odor itself—as even when it proceeds from a gangrenous sore or limb—may induce pain over the orbits, disgust, nausea, cardialgia, and vomiting, all pointing to the emotions and sympathies brought into play by an impression on the olfactories. Without dwelling further on this topic, it may briefly be stated that paludal fever is not the disease seen in connection with these circumstances—except in malarious regions and seasons.

In experiments instituted by Orfila on dogs, the application of putrid bile, blood and cerebral substance to the areolar tissue, was followed by vomiting, fever, plaintive cries, and extreme depression; death ordinarily happened within twenty-four hours, and on examining the bodies, he discovered marked signs of inflammation of the parts, to which the matter had been applied, and of those in their immediate vicinity. Magendie avers, the injection of putrid animal matter into the blood causes it to lose its power of coagulating when drawn, and that “when this condition exists, the circulation appears more embarrassed than from any other cause.” Similar experiments, with like results, were made by Professor Harrison, of Louisiana, who, besides, entertained the opinion that the putrescent product is made soluble in the air by means of ammonia. It does, therefore, appear, that the immediate application to the blood of albuminous matter undergoing putrefaction, communicates a change to its allied organic elements; that the consequent dissolved state of the blood is not owing to a mere diminution of its fibrin, but a

reassertion therein of the chemical over the vital forces; and that the free transmission of blood through the capillaries is thus rendered difficult, and may result in œdema, congestions, inflammatory engorgements, hemorrhages, and petechiæ.

The acid secretions of some reptiles and insects, as also some acids, as the sulphuric, when injected into the blood, exert a similar, though not identical effect. In this place might also be considered irritative wounds acquired in dissections, and ascribed to a peculiar poison generated in the corpse about the time of death; those from a spicula of bone in unsound meat, or inoculated from the secretion of a morbid serous cavity; but a bare allusion is now sufficient. While these facts, when fairly weighed, fail to show any recognizable relation with the production of paludal fever, it is to be regretted that other experiments had not been instituted for the purpose of ascertaining whether there are any agents which by injection into the blood might counteract or arrest the changes before detailed.

Inquiries touching the effect upon the economy of the prehension of septic animal substances embrace some considerations of the highest interest in sanitary and forensic medicine; and though much has been done in this line, more remains to engross the attention of future scientists. Notwithstanding the preference given by certain epicures to tainted food, or the fact that some nations, as on Orange river, in Africa, consider fetor a perfume; or others, like the inhabitants of the Orkney and Shetland Islands, delight in impure, decomposed food, it does not appear that such have escaped with perfect impunity. True, the solvent and antiseptic qualities of the gastric juice do much towards correcting the evil, but there are limits to its power; for even dogs feeding largely on putrid carcasses have frequently been known to vomit and afterwards pine away and die. The injection of decomposed albuminoid substances, or those which are in process of undergoing metamorphosis or chemical dislocation, have at times led to suspicions of criminal poisoning, of which a remarkable case has come under our notice. In the list of those substances are found some which are of most frequent use—for instance, milk, cheese, eggs, and meats. The change from wholesomeness, when recognized, is not identical; sometimes, as in cheese or the Wurtemberg sausage, it is only a soft-

ening which resembles adipocire, and may escape casual notice; at others the food becomes stale, sour or rancid, as its gelatinous or oleaginous principles are involved; and in the case of shell and float fish, is apt to exhibit phosphorescence. It is common also, in many such substances, to meet with mouldiness. The symptoms in all these cases have proved to be those of gastro-enteritis, as from an irritant poison, and on prospective recovery a cutaneous rash is often observed. And since the most concentrated putrid animal effluvium or the ingestion of putrid matter does not give origin to the specific effect of malaria, it would be vain to ascribe its cause to the more diffused form in which putrefaction might operate. Among the many sub-agents known to concur, it is most likely that putrefaction does often afford a pabulum to malaria; for as far as this study has proceeded, malaria is most clearly indicated as a specific principle.

The theory of fermentation, first initiated by the Greek physicians, adopted by Sydenham, called zymosis by Farr, and sustained by the scientific Liebig, did much towards explaining the mode of malarious impression, but chiefly by a resort to analogical reasoning in explanation of the phenomena exhibited in the animal economy. Others, abandoning all external chemical agencies, sought for the cause in microscopic living forms—Cooper, in animalculæ; Dwight, in their putrefaction; Mitchell, Salisbury, and Bartlett, in the spores of minute cryptogams. These views being still *sub judice*, all that will now be attempted will be by way of a running commentary. The animalcular theory, or rather hypothesis, is so untenable as to merit here only a bare mention. The contest for favor lies, then, between the advocates for the action of living reproductive cells introduced into the blood, and those who find motion or contact decomposition sufficient to account for the results. While clinical experience yields some degree of plausibility to the zymotic theory in its application to paludal fever, it will be found, on close examination, not definite or satisfactory enough to account for certain results. Grant, as Liebig affirms, “miasmata act as ferments to the blood or to the substances in it,” there still remains to be accounted for the changes usually observed in other bodies undergoing fermentation. Thus, analogy points in yeast to a living structure; and to a similar organism, when curd produces the

fermentation of sugar. Besides this, we fail to trace from malarious action the myriads of living creatures which are present wherever there is fermentation or putrefaction. Their spores or ova must have pre-existed in the matters subjected to metamorphosis, as nothing hitherto known can reverse the aphorism of Cuvier: "*La vie n'est néé que de la vie.*" Some live under the temperature of the vinous fermentation between 55° to 65° F., and make way for others when the acetous fermentation sets in between 70° and 85° Fahr. Putrefaction inaugurates another train of events tending to a complete analysis of substance, and, after the evolution of carbonic acid gas, ammonia, sulphuretted, phosphuretted and carburetted hydrogen, leaving behind an inert mould. Very different to all these are the phenomena exhibited in paludal fever. Objections fatal to any theory based upon fermentation depend upon these facts: that at home and abroad malaria has, not seldom, acted with violence within 24 hours from the very first exposure to its influence; that in other instances, such exposure has been followed by a speedy—sometimes spontaneous—alteration of the physical properties of the blood, which may anticipate the outbreak of fever by some days; that this change may in a few cases be so rapid and overwhelming as at once to amount to necræmia, while in others it may prove so gradual as to lead to a spanæmia, without any notable febrile movements, but accompanied with parabysmic enlargements of the chylopoëtic viscera.

The stifling sensation and oppressed respiration which some persons experience at the moment of exposure, would indicate the lungs as the organs chiefly invaded, as indeed they appear at all times the more easily assailable. These feelings, however, may be in part owing to the diminution of the supply of oxygen from a given space of air, at the same time that the hygrometer shows an increased percentage of aqueous vapor, acting through the immense expansion of the pulmonary tissue upon the blood. That malaria also penetrates the cutaneous surface along with the vapor of the air, is supported by analogies and experiments such as those of Mitchell, already alluded to. It is said the monks of Rome, who are continually clad in woolen garments, enjoy a comparative immunity from fever, and the custom of anointing the skin, as practised by some people of the torrid zone, is regarded as prophylactic.

The absorption of malaria, judging by its effects, is favored by sleep, fatigue and inanition. But be its entrance into the system what it may, the blood becomes partially deoxydized, and sometimes devitalized, at a very early period. This change is apt at first to be most evident in the venous circulation, as manifested by its color, the venous stasis, and capillary collapse which follow. These soon obtain a qualitative alteration, as may be proved by the diminution of the corpuscles and salines of the blood and an increase of cholesterine. The coagulability of the blood is impaired, and the tissues are not properly oxygenized; therefore the normal heat is diminished in the surface capillaries, or irregularly distributed, as the tissues are more or less nourished. A reaction begins in the parts supplied by the nerves of organic life, which is propagated to the cerebro-spinal axis, and all the efforts of the system are concentrated to quicken the circulation for increased aeration in respiration, or for depuration through the various emunctories. When the latter object is attained, metamorphoses of the tissues are effected, heat is developed, and a spanæmia remains after such an expenditure of energy.

The general effects of nitrogenized bodies upon the fibrin and globulin of the circulating mass should be studied in this connection. To the protest earnestly made against the abuse of nitrous oxide, when imperious fashion demanded it for the painless extraction of teeth, no attention was given, although its votaries were forewarned that it prevented the coagulation of the blood, and favored hemorrhage by liquefaction. There are other compounds of nitrogen, as pepsine, which, on coming into contact with albuminous fluids, coagulate them at once. These are themselves easily decomposed as possessed of feeble chemical affinity. The transforming or catalytic agency of such bodies upon albumen and its allied principles may be partially exemplified upon recent blood. When a portion of animal substance, as a piece of intestine, was suspended in blood to prevent it from coagulating, there soon formed a deposit of red particles, over which floated a colorless viscous fluid, the liquor sanguinis or plastic lymph. This was somewhat turbid and distinct from the serosity of the blood. Here was no apparent combination of elements, but a simple catalytic process. In

former years, other experiments were made with no other objects in view than personal gratification, to verify facts or for discovery in new directions, and therefore their general results, and not their details, were preserved. The medicinal agents which lowered the plasticity of recent blood were found to be those that in the body liquefied secretions and promoted elimination. Calomel rendered the blood very fluid; the alkalies and common salt, fluid and red; and besides this, carbonate of potassa gave it a slight bluish tint. These in the body indirectly promote absorption, and are apt to increase the urinary secretion. On the other hand, acids coagulated the blood, and acetic acid also blackened it, and in the body diminished the secretion of urine. Tannic acid and creosote possessed similar powers; the latter apparently not combining with the albumen, but acting purely in a catalytic manner. These are added here, not for their value, but as suggestions to others having more time and better appliances at their disposal to prosecute this interesting branch of study.

From all this survey, the decomposition of blood globules appears to be the leading phenomenon of malarial poisoning; a metamorphosis such as may be produced by the action of urea and sugar ferments; indeed, transformations analogous to those which Schmidt, of Dorpat, states can be easily induced in fibrin, casein and albumen. And be the exact solution what it may, it is enough for the present purpose that Faraday has projected the simple thought that catalytic agency is really electrical, the third body acting as a conductor to those in contact, and may either cause a union or disunion of elements. In amplification of this subject, the consideration of the following diagram of the approximate composition of the blood (whose authority, we regret, has not been preserved) may be of some service:

Blood,	{ Serum,	{ Soluble albumen coagulable by heat.
		{ Albumen in combination with soda.
		{ A self-coagulable form of albuminous matter.
	{ Solid albumen,	{ Decolorable by water—i. e., fibrin.
		{ Not decolorable—i. e., hæmatosin.

From the effects of malaria an increase of fibrin accompanies a diminution of the hæmatosin or red particles of the blood, and that fluid becomes darker in color, and this color is more permanent than when it arises from some other causes. A further

deterioration of the blood may be referred to the action of the liver and spleen, chiefly to the breaking up of the multinuclear corpuscles usually found in the latter, as may be inferred from autopsies, although some anterior changes, as ascertained by extensive clinical experience must have preceded this.

If malaria acted like a cumulative poison, each dose increasing the danger, there could be no recovery to a patient who remained continually exposed to its emanations; but in truth, if it does not kill at once by thoroughly disorganizing the blood in its channels, it leads to such ulterior changes in that fluid as renders it, more or less, unsuited to its continued impression, or as promotes eliminations of its diminished abnormal products. Some of these very changes, it would seem, calomel anticipates by its action upon albumen. As to sulphate of quinine, its action upon the nervous system, especially upon the nerves of organic life, is undoubted; but its effect upon the blood is among the problems as yet difficult of solution. Its base re-appears in the urine under another combination, but the sulphuric acid remains unaccounted for. In certain cases complicated with nephritis, quinia unquestionably proves an irritant to the kidneys. Malaria may operate, so to speak, in very small doses, though its effects are more sudden and vivid when in concentrated force, and the more so the purer was the blood antecedently and the less habituated the system to ready elimination.

The reproduction or multiplication of the poisons within the body is extremely doubtful. It is well known that the excreta of patients laboring under paludal fever, their sweat, breath and urine, which are often very offensive, never convey the disease, nor is the closest proximity at all contagious. The foetus in utero alone is affected through the maternal circulation, but the child at the breast escapes unhurt. Therefore no living and multiplying germ is eliminated; no entophyte or even zymosis in its restricted signification, as in the exanthemata, can be predicated.

But though the poison is not reproducible within the system, it does induce such lesions, both of the fluids and solids, as necessitate processes of reparation in successive paroxysms with intervals of comparative quiescence; and till the reparation is promoted, and till the power of resistance to external agencies

is restored, relapses may be expected. From actual observation, it can be inferred that malaria, at times, either fails to make a permanent impression on the blood, or passes off with the excreta; that at others its action is by gradual increments, while again in some cases physical changes are propagated *en masse* in the vital fluids. Nothing, however, proves that it ever remains in the system as a hidden and lurking poison, although it has been supposed that it remains as such for months or even years. Analogy might indicate the milk sickness among cattle as a fact of this sort; but the cause is evidently a cumulative poison, more in relation with lead-poisoning than fever, which may be precipitated into action by violent exercise, and is evidently transmissible to other animals and to man. Liebig made a close approximation to the true character of malaria when he said: "All observation proves that aerial contagions are substances in a state of decomposition. They give out ammonia by reaction and sensible tests." While the existence of malaria in a state of decomposition cannot be proved, its great liability to decomposition within the system is clinically demonstrable from the results both in the blood and in the excreta, in a circle of action and reaction. This is rendered plainer when it is considered that the organic compounds which are most prone to spontaneous change are all compounds of nitrogen, and it is the opposition of properties that produces the greatest results. Hence malaria, to employ a slight modification of the language of Carpenter, ranges itself as "a disintegrating azotized substance in a state of change in the circulation."

By fair induction, therefore, paludal fever is to be regarded as dependent upon a specific element or poison; but whether this may not proceed from various sources or objects common to infected spots, is as yet undetermined. Inference might be drawn from the varieties and complications of the fever, that other causes may coincide with the paludal to yield hybrid effects, as when roseola, purpura or urticaria can be traced to the prehension of foul water or unwholesome food, superadded to malarial exposure—not to advert here to cases where gastric distress and cephalic determination alternate every other day. We have also seen Asiatic cholera displace remittent fever, and again give way to it. Researches sustain the opinion, if they

do not yield more positive results, that the causes of the yellow fever, algid cholera, and paludal fever are each in themselves etio-logically specific. They may appear at times as intercurrent diseases, while at others they displace each other. Upon the authority of that acute and judicious observer, the late Professor James Jones, of the University of Louisiana, as stated in his didactic lectures, the yellow fever appeared in New Orleans about the middle of September, 1832, and was raging about the latter part of October, when it suffered a total eclipse by the more potent and sudden intervention of the cholera. The ordinary endemic yellow fever manifests itself where there is an accumulation of persons, as in cities, garrisons, camps, and ships; but the more diffusible epidemic of 1853 in Louisiana extended to small villages, plantations, and even detached dwellings, thus showing some superadded condition or co-agent, which has more or less existed in certain invasions since that period. This greater diffusibility of the yellow fever was quite evident in the disastrous epidemic that afflicted Norfolk and Portsmouth in 1855. Though it did not spread beyond the city limits, there was noticed in the country, at the time, an unusual prevalence of severe furuncular affections that led to suspicions of some latent connection.

To Prof. J. K. Mitchell belongs the honor of the cryptogamic theory of paludal fever. Dr. Charles Cowdell applied it subsequently to cholera. It is as yet a mere theory, but little removed in some of its aspects from a plausible hypothesis, but offers perhaps the best field for further investigation. Of the cryptogamia, composing so large a department of the vegetable kingdom, many are known to possess no deleterious qualities. Some others—the epiphytes and entophytes—affect the cutaneous and mucous surfaces of man; the soil on which they grow are, therefore, for the most part, composed of epithelium or cuticle, and acid or mucous exudations; but acidity, though favorable to their growth, is not indispensable, since some of the cryptogamia grow on an alkaline or neutral ground, as on the ulcerations of the trachea. Humidity and warmth are necessary conditions of growth on parts predisposed thereto by an impairment of their nutritive functions. These fungi are such as resemble, in all essential particulars, the *torula* or *cryptococcus cerevisæ*,

or thallus fibrils. They present sporidia, round or elliptical cells, moniliform rows—the sporule bearers of Remak, fibrils of various lengths, sometimes branched, sometimes not, sometimes mycelium or cells placed end to end. Of these, *sarcina ventriculi* and *oidium albicans* are perhaps the best studied. Of other minute cryptogams introduced within the primæ viæ, and acting through the circulation, the most familiar is the *ergotætia abortifaciens*, of Quekett. If it multiplies within the blood, and by reproduction there, tends to produce a gangrenoid state, then ergot would be highly unsafe as a therapeutical agent where ulterior poisonous effects would be beyond control. But its activity remains even when its vitality is demonstrably destroyed; and whatever condition of the blood may be induced, it does not follow that this plant is propagable in the blood.

The effects of the *amanita muscaria* when taken internally, and its passage through the urinary organs with unchanged intoxicating qualities, proves indeed the fact of the excretion of its active principle, but many doubts exist as to the multiplication of fungus cells in the system. The noxious principle of the poisonous *agarici* has hitherto escaped the test of the chemist. The entire plant is poisonous, and it must be taken in enormous doses, when compared with the amount which could be introduced by the air if the matter were infinitesimal.

The family of the conio-mycetes, of which the yeast and mother of vinegar plants are used in domestic economy, and the family of hypho-mycetes, presenting thread fibrils as in mould, contain some instances at least which are not hurtful under ordinary circumstances. Of the palmellaceæ; the *palmoglea macrococa*, the green slime of stones and walls; the *hæmatoccus*, in rain water; the *palmella*, as gory dew on damp walls; the *confervæ* green floating threads in running water, from every observation hitherto made, have no relation with malarious fever. Nothing moreover shows that mouldiness, except when accompanied with albuminoid degenerations, is apt to be very injurious. Without having a personal knowledge of the fact, it may not be out of place to state upon intelligent non-professional authority, that white laborers, engaged in fanning smutty wheat in malarious regions, are almost sure to have chills and fevers within a very few days afterwards. Some cases of fever attributed to

dry rot in the sills and sleepers of decayed tenements have come under my notice. About early candle light the rooms above the ground floor became oppressive as if filled with a stifling air, which at times dimmed the light. The fever proved of a typhoid character, running three weeks, and accompanied with a delirium, the principal trait of which was to escape confinement and seek the open air. Fortunately of about half a dozen cases none died. Dr. Mease of Maryland has recorded similar cases.

The extreme minuteness of the spores of fungi; their easy transportation through the air, by the attraction of the sun, by winds, by insects, by their own elasticity, and by being dried and rendered lighter; together with other facts in the natural history of these plants, such as the stagnant humidity of their habitat, their requiring warmth and moisture for their normal existence, as exemplified in the marshes of warm climates, their rapid growth and multiplication, as also their destruction by floods, great heat and frost, give to the cryptogamic theory a commanding position in the study of malaria at this particular time. Of the fungi, that are almost, if not altogether microscopic, two classes are patent to the amateur observer—such as grow from the juices of living matter and die with it, and those that are only found upon dead matter, whether vegetable mould or substance, whether mineral or chemical matter. They are so innumerable that their spores are constantly floating in the air. Again the microscope reveals that these growths furnish support to other parasitic fungi.

Fungi like other plants are apt to exhaust the surface on which they grow, and thus to render it unsuitable for a time for their continued propagation; hence, very often they extend from the circumference, after having impoverished the centre, or disappear entirely from a given locality where they had previously been abundant.

As the cryptogamic theory affords the best solution we have hitherto had of the origin of malaria, if we consider catalysis, to be its mode of action, it becomes a matter of deep interest to investigate some points upon which it may rest for proofs. Some repetition may be necessary and unavoidable. The most prominent questions which at once present themselves are these:

Can it be shown that the effects of malaria are due to the

growth and multiplication of living cells of fungi within the blood?

Are the effects of malaria due to the physiological action of elementary poisonous principles residing in the germs, or sporidia independent of their vital operations?

To the first question grave objections might be urged, for unless some limits can be assigned to the reproductive powers of these entophytes, death would be the invariable result of every case of infection, as it is known to occur from parasitic growths in insects, and indeed in the vegetable kingdom; and the only hope to avert the catastrophe would consist in the discovery and timely application of some means at once to destroy the vitality of the spores. And even then, the hope might be doomed to disappointment; for as in a legend of the Arabian Nights, there was no escape from another direful conflict, while a single pomegranate seed remained unscathed, so here every lurking germ would be a future source of danger, and a continuance in a malarious locality would require the constant use of the parasiticide. A very fatal objection might be urged against the adaptation of the blood, as a proper habitat to the fungi, supposed to constitute malaria, on account of its temperature, 98° Fahr., being too high for their normal growth and reproduction—being such a temperature as out of the body diminishes malarious emanations, if not finally arrests them. Both Drs. Salisbury and Bartlett have announced the presence of spores of particular fungi in the blood and in the urine; but with all due respect, it may be said that microscopic examinations, even from their showing, have failed to demonstrate beyond well-grounded doubts, that these spores were specific and unmistakably connected with ague. Entophytes and their sporidia do, indeed, at times, appear on the buccal surfaces, in the alvine and urinary secretions, on the skin and in herpetic eruptions of the lips under circumstances common to paludal fever as to other diseases, especially when the digestive organs are at fault.

No doubt exists of the presence of cryptogams in spores, in spermatoid corpuscles, and in progressive stages of evolution in black vomit, and in the tissues after death from yellow fever, as taught by the late Prof. James Jones, of Louisiana; and yet, from an examination of an extensive collection of black vomit,

preserved in hermetically sealed phials, I found no other fungus growths than moniliform filiments and such appearances as are exhibited by *sarcina ventriculi*, which is believed by some good authorities to be identical with *torula cerivisiæ*. That these bodies have no relation with the production of the yellow fever has been sufficiently tested by experiments, as in one where the black vomit was drunk without deleterious effect. Analogy, when drawn from the yellow to paludal fever, is quite legitimate, in consideration of the invaluable facts first ascertained in Virginia, and set forth in that memorable Report on the Yellow Fever, as it occurred in Norfolk in 1855. This report emanated from a committee of distinguished physicians, of whom the eminent Dr. Wm. Selden was chairman, and in honor to the authors and to Virginia is worthy of an extensive distribution.* In the present state of our knowledge the first question proposed is only susceptible of a negative answer.

If, then, the cryptogamic origin of paludal fever is to be received as that which unites the most elements in its favor, it would be most rational and in accordance with ascertained facts herein set forth, to ascribe the effects to the action of a specific azotized principle from the vegetable kingdom upon albumen. Now all the azotized bodies, as diastase, yeast, &c., which act as ferments, among which pepsine may be ranked, pass through several stages of decomposition while performing this function, and modify the non-azotized bodies on which they act according to the state of decomposition in which they themselves are. The poison of malaria, whether existing in living or effete sporidia, seem to possess a physiological activity independent of the vitality of its vehicle, for the weight of evidence goes to show that in acting it ceases itself to exist.

Boracic Acid, according to the Edinburgh correspondent of the *Boston Med. & Surg. Jour.* (Aug 6), is used by Prof. Lister in the Edinburgh hospitals to some extent as a disinfectant; it is less irritating than carbolic acid, and apparently as effectual.

*Its true value cannot be appreciated from any synopsis. To do it justice, it should be published *in extenso*. Why not in our Transactions?

ART. III.—*Some Remarks on Sponge-Tents.* By WM. A. GILLESPIE, M.D., Louisa C. H., Va.

I have had, for many years, a good deal of experience in the use of sponge-tents, and am satisfied that in many conditions of the uterus, they are a safe and useful remedy. I have used them, in most cases with decided benefit, for dilatation in dysmenorrhœa, in engorgements and enlargements of the *os* and *cervix*, in chronic hemorrhages from the uterus, and in ulceration of the *os*, extending up the cervical canal. I judge the *modus operandi* is that pressure promotes absorption by setting up a new action or a new stimulus in the vessels of the part.

In some cases I have applied them weekly for many weeks in succession, with the happiest results. Though it has been *said* that they produce pelvic cellulitis or pelvic peritonitis, I have never seen such results in connection with their use. I have seen those accidents occur where no mechanical or other treatment had been used. When they do occur in connection with the use of tents (as we are informed sometimes happens), may it not be a mere coincidence—*post hoc ergo propter hoc*? Still, I would advise their application with gentleness, care, and caution.

A few years ago I was treating a lady for engorgement and ulceration of the *os* and *cervix*, with a contraction of the cervical canal, attended by painful menstruation, using in her case sponge-tents in addition to cauterization with nitrate of silver and astringent injections. Visiting her weekly and applying a tent, I directed her to remove it the next day after its introduction. Upon one occasion she forgot to do so, and upon my weekly visit she told me "something was wrong; that her womb had come down." Upon examination, I found the tent *in situ*, very much enlarged from the secretions deposited in it, hard and firm to the touch, and nearly an inch in diameter. With some difficulty I removed the tent; no untoward effect followed. I had no occasion to introduce another; there was a decided and rapid improvement in her case. She made a good recovery, and has been well generally since, though she had suffered greatly from uterine disease for years previously, and had been treated for many diseases, including apoplexy, but all due to hysteria and nervous affections accompanying the diseased condition of the uterus.

I never purchase sponge-tents. I prepare them for my own use in the following manner: I take fine, tough sponge, and, after washing it clean, I cut it in pieces about one inch in diameter at the larger end and half an inch at the smaller, and about three inches long; then I pierce each piece through its centre with a small wire a little longer than the sponge; then I dip it in a thin mucilage of gum-arabic, to which a solution of sulphate of iron has been added to prevent fetidity. With a common twine I wrap it tightly, leaving about half an inch of the larger extremity unwrapped, which thus forms a knob or bulb, which, upon the introduction of the tent, keeps it fixed *in situ*, not liable to slip out. Through the knob I introduce a strong thread or twine about six inches long and tie it firmly, by which to remove the tent when desired. After the tent is well dried, I remove the wires and shave off the irregularities with a sharp knife not very smoothly, and then give it a thin coat of beeswax, and roll it. From the moderate quantity of gum used, it is flexible, and can be readily introduced in flexions of the uterine canal when you cannot introduce a sound.

ART. IV — *Slippery-Elm Bougies in the Treatment of Organic Strictures of the Urethra.* By JAMES D. MONCURE, M. D., Resident Physician and Medical Superintendent of Church Institute, Richmond, Va.

The use of slippery-elm bougies in the treatment of organic strictures of the urethra is an old method; but from my experience with it, it is far preferable to any other method of dilatation for the following reasons:

1st. The instrument can be more readily introduced than any other, because it is self-lubricating, and can be made as small as needed.

2nd. It is safest, because so flexible that, when properly prepared, it is impossible to inflict any injury.

3rd. It is the quickest in its action, as like the sponge-tent, though in a less degree, it absorbs the moisture, and while in the stricture dilates the opening to almost double its original size.

4th. It is far less irritating, and indeed is sometimes soothing to the inflamed mucous membrane.

5th. It can always be introduced into any stricture through which the smallest continuous stream of urine can pass.

6th. It requires no special amount of skill on the part of the operator to secure its introduction.

I prefer to prepare elm-bougies for my own use in the following manner: From a sheet of the bark of the usual length as found in the drug-stores, split off a piece a little larger in size than the number of the instrument that would probably be required. With an ordinary pocket-knife, trim this slip or stick down to the size and form of the bougie that would otherwise be used. Being thus made, it is prepared for introduction by merely *dipping* it in water; or, better still, by drawing it once through the closed hand, in the palm of which a wet cloth is held. Then wait only three or four minutes until a mucilaginous coat forms on it, when it is ready for use.

I will illustrate the above points by a few cases treated at the "Church Institute" since I have been in charge of it.

CASE I.—D—— was admitted May 4th, 1874; laborer; age 55, had fallen, several years ago, from a cherry tree, and in his descent lodged on a limb—thus injuring the urethra. When admitted, he had two fistulous openings—one in the perineum; the other in the scrotal sac. Drs. Taliaferro and Cunningham made repeated efforts to introduce a No. 1 bougie; but though the point was readily engaged in the stricture, they never succeeded in reaching the bladder. On May 17th, I took charge of the patient, and like them failed to introduce the ordinary bougie. On May 24th, I determined to try my old friend, the elm bougie; and, without the slightest difficulty, reached the bladder with it. Although the urethra was very much inflamed and, consequently very irritable, I never introduced it but what the old man would inform me: "Doctor, that thing does not hurt me like the others, and you can use it whenever you choose." Unfortunately, he was obliged to leave on May 31st from lack of funds; but in the short time he was under treatment, his stream had become twice as large, and the fistulous openings had almost ceased to discharge. Since his return, he has gotten a supply of elm bark from me, from which he prepares his own bougies, which he has learned to introduce himself, as he says "nothing else can be made to enter his bladder."

CASE II.—J. K——, mechanic, age 33, has had a severe

stricture ever since 1867. Was treated here once before by Dr. I. H. White; but though much improved by that distinguished surgeon's treatment, he left too soon. He then fell into the hands of six other surgeons and physicians, among them, some of the most celebrated in the State; one of them used a "cutting instrument." None, however, succeeded in reaching his bladder. Since being cut, he has suffered more, and his condition has become worse.

Was admitted June 25th, 1874. Scrotum very much inflamed and tumefied; two fistulous openings, through which all his urine passed; bladder very irritable, urethra very sensitive, a large quantity of muco-purulent matter being also discharged through the fistulæ. Tried a No. 1 bougie, which encountered in the fossa navicularis a stricture so tight that I could not pass it. June 26th, made an elm bougie about the size of a No. 1, but with a much smaller point, and without the least difficulty introduced it into the bladder, after passing through three distinct strictures. The elm bougie was then used every other day until July 3rd, when he left the Institute much improved, passing the urine through the urethra, with very little scrotal tumefaction and scarcely any discharge of muco-purulent matter.

CASE III.—W—— has had a stricture ever since 1859; has been very intemperate for the last 18 months; general health very bad; exceedingly nervous and sensitive.

Was admitted June 21st under the care of Dr. Cunningham. June 22nd, Dr. C. attempted to introduce a very fine bougie, while the patient was under the influence of chloroform; the entire urethra was very much indurated, with six distinct strictures, five of which were passed with considerable difficulty; but the sixth and last one resisted every effort made by either Dr. C. or myself. Again on the 25th our efforts proved fruitless. At my suggestion, the elm bougie was tried on the 27th; and although it was made much larger than the other, it reached the bladder without much difficulty. Since then, the patient has always succeeded in introducing it except once.

A few days after his arrival, he was taken with a severe chill, which afterwards proved to have been caused by urinary infiltration, followed by an abscess. About that time, and for twelve days, the bougie was not used at all, owing to his general health and to the excessive hyperæsthesia of the parts; nor has he allowed the bougie to remain in the stricture at any time over ten minutes. Nevertheless, since the treatment has been resumed, his stream has steadily increased in size; he now uses an elm bougie equal in size to a No. 4. He has never passed any urine through the perineal opening. In this case there has not been

as much improvement as there should have been, owing to his obstinate resistance to treatment.

CASE IV.—T. W——, age 29, admitted August 6th, 1874, on account of a compound, comminuted fracture of the tibia and fibula; was treated here last winter for the same by the former superintendent, Dr. Taliaferro; when discharged, had improved greatly; could pass a No. 5 bougie; has since neglected himself, and has become much worse.

August 20th.—I attempted to pass a No. 2, but could not get beyond the first stricture, and gave him much pain, though no undue force was used. August 22nd—The elm bougie reached the bladder with ease and gave no pain, though it remained in the bladder for 45 minutes. The elm bougie has been introduced three times since, remaining one hour each time, so that when withdrawn it is nearly twice as large as when introduced. I am now using one twice the size of the first, and he says, "Doctor, you may use that as much as you like, but I do not want you ever to put one of Dr. T.'s bougies into me."

These cases, I think, will suffice to prove the great value of the elm bougie. I would like to call special attention to its dilating powers, as it attains almost twice its original size when permitted to remain in the urethra for one hour, thus gradually relieving the stricture and inflicting little or no pain. When properly moistened, it becomes so tough and flexible that it would be impossible to break it while in the urethra.

As already intimated, I have not called attention to the elm bougie as a new something; on the contrary, the suggestion regarding its use is very old. But in conversations with many intelligent and experienced physicians and surgeons, I find that they have allowed it to be forgotten, and have, consequently, no experience in the use of this simple instrument. Besides this, on looking over the usual text-books on the subject of the treatment of urethral strictures, I notice that some of the most popular of them make no allusion to the elm bougie, which, besides the advantages already claimed for it, possesses those of being cheap, procurable in almost any community, and adaptable to the treatment of almost any stricture requiring dilatation. To many medical students and young practitioners, therefore, this *old* suggestion may come with all the force and novelty of a new, though well tried and valuable recommendation.

ART. V.—*Suppression of Urine for Twenty-five Days.* By A. W. FONTAINE, M. D., New Canton, Buckingham Co., Va. (With further Notes on the Case, by J. S. Dorsey Cullen, M. D., Prof. Diseases of Women and Children, Medical College of Virginia, &c.)

The subject of this misfortune was a young lady about 21 years of age, of nervo-sanguine temperament, somewhat predisposed to hysteria.

Was called to see her on the 19th of January 1874. Found she had had an intermittent fever for several days. Complained much of her back; had headache; furred tongue; tolerable, pulse; could not sleep, and appetite, never very good, was all gone. Her pupils were much dilated; there was great tenderness over portions of the spinal column. She was very nervous. Prescribed a calomel purge, and some quinine *pro re nata*.

January 20.—Called again. Fever high, (about 4 P. M.) symptoms no better. Had, besides, a bright erythematous eruption on the back which was very tender to the touch, but superficial. Complained more than ever of the back—lying, sitting, or standing, it was all the same. Pain increased by movement or pressure. There had been but little perspiration, and *no urine for four days*. Had slept very little, and was getting “more and more nervous.” From these developments I made out a case of acute spinal irritation, complicated with malarial fever and possibly obstinate renal congestion.

The treatment now for some days consisted of warm baths, mild cathartics, quinine, diuretics in great variety, and anodynes at night. Very soon I found that medicines in ordinary doses were of no use to her. She required very large doses, and often these failed to have much effect. (The same is observable in cerebro-spinal-meningitis, brain fever, and other nervous disorders.) Her bowels were hard to move; sleep was hard to be obtained; no cinchonism had been produced; and, worse than all, she had *made no urine for eight or nine days*. For four or five days she had taken persistently, in large quantities, and in every rational combination, the best diuretics known to our profession. Among them I will mention cream of tartar, spts. nitre, digitalis, marsh mallow, parsley tea with soda,

pipsissewa tea with salt-petre, spts. turpentine, buchu, cantharides, gin and juniper, besides others of less note; *and all without one drop of urine being produced!* Here was no case of retention. The abdomen was flat, even hollow—no distention of the bladder. She utterly refused to allow catheterism from the first; and declined many other attentions of a like nature. Her “firmness” in this respect embarrassed me no little in the proper management of the case.

It now became a question of the most serious import—“how long may a person live without renal excretion?” In view of the commonly received opinions on this head, there was every reason to apprehend, and that hourly, the fatal effects of uræmic poisoning; and the prognosis, to say the least, was *terribly doubtful*. Conceiving the kidneys to be already in a state of congestion, I abandoned diuretics. Faradization of the kidneys had been attempted, and though the mildest possible current was used she *could not* stand it, so exquisitely sensitive was the skin of the back, and all parts beneath it.

Dr. R. P. Walton, of Cumberland county, had now been called. We were agreed as to the state of the case, and the indications for treatment. But so far as we could then see, “the whole ground seemed to have been covered.” As to the prognosis neither could give the other much comfort. For some light on this important matter, I had ransacked my library, consulted Dunglison, Wood, Watson, Gross, Stillé (1868) and the Cyclopædia of Practical Medicine (1867). In some, if not all, of these, I found much that was valuable relating to the causation and treatment of suppression of the urine, but little or nothing that applied to our case, with its numerous and unusual complications. At best the matter was treated of as incidental to fevers and other diseases, mostly as a symptom requiring special treatment; but little was said to meet the requirements of my anxious mind as exercised by the case in hand. General, vague, and unsatisfactory remarks often occurred as to the prognosis, but the impression left was that there was a sad want of information among most writers on that point. How important is it to be able to give some “certain sound” in answer to the anxious enquiries of patients and friends when the life of a dear one seems so long trembling in the balance! But in cases of rare occurrence like this one, the diffi-

culty is much enhanced, and may be best met by a large accumulation of statistical data. There can be but little doubt that there is a sufficiency of material touching this subject within the observation and experience of the profession at large, which, if collected, would prove valuable to all concerned—much needed information that belongs legitimately to the science, which it is the duty of *individuals* to contribute for the common good. Hence *this* is made public, and not without the hope of eliciting more to the same end.

But to resume the history. Soon after the visit of Dr. Walton to my patient, and during my researches after literature bearing on the subject, came the *Richmond and Louisville Medical Journal* for July, 1874, containing a letter from Dr. B. T. Buxton, of Warren, Maine, calling attention to a case of his, which had suppression of urine *eleven days*. In this case there was “no organ, or set of organs,” acting vicariously for the kidneys. And Dr. B. asks, “Why not dispense with the kidneys altogether?”—seemingly a pertinent question, though evidently made in jest.

Here I found another grain of comfort. Hearing also of a case of Dr. J. S. D. Cullen, of Richmond, I wrote at once to him. He gave me no information as to the particular case reported to be his, but many valuable suggestions as to my own case. Ere this, for some days, I had concluded that mine was mainly and essentially a case of spinal irritation, and that the suppression of urine was only “incidental and secondary,” as I wrote Dr. C. But as to the immediate cause of suppression—whether kidney congestion or paralysis of those organs—was what I have not yet fully determined. At all events, I believed with Dr. C., that diuretics, so far from doing good, were calculated to do much harm by “irritating organs already oppressed” and deluged by congestion. I had for some days suspended them, and turned my efforts to the use of diaphoretics and counter-irritation. She had already been cupped and repeatedly, until the gradually extending irritation and hyperæsthesia of the back made it impossible to persist, as the tenderness was now so great that the slightest touch could not be borne anywhere on the posterior part of the body. This tenderness progressed along the whole spinal tract, from the occipital protu-

berance above to the point of the coccyx below; from the point of one elbow, across the shoulders, to the other; and thus from side to side of the trunk. After exhausting the catalogue of diuretics, and before writing to Dr. C., I had, as before stated, made one brief but fearfully painful essay to faradise the kidneys. With the mildest current possible, such was the effect I would not repeat it on any human in her condition. Next I tried galvanization of the cord. At first she could hardly bear two cells. This was continued twice daily, increasing the strength of current, a pair or two at a time, up to 8 or 10, with the effect of so obtunding the sensibility that I could cup her, *if done immediately after each séance*. During all this time, she had with some regularity a nervous rigor, or chill, every day or night, followed by a rise of fever, during which her sufferings were much aggravated. All this time she ate hardly anything; slept very little, even under large doses of morphia, chloral, bromide of potassium, valerian, &c., separately and combined in various ways and proportions. Warm baths were frequently used. Diaphoretics were often given. Purgatives were constantly required to move the bowels, and none but the strongest had any effect. By these and other means we hoped to supplement, or *substitute*, in some degree at least, the action of the kidneys. How far we succeeded may never be known. I could never detect the presence of urea in any of the secretions of skin or bowels. She had almost every night, at the fall of fever, some perspiration, and often expressed some relief from it.

This was the plan of treatment for the first and second weeks, with the results as I now recollect them. All the while there was some intermittent fever, for which she took enormous doses of quinia. I had commenced with 30 grains daily without sensible effect—gradually increased to 40, 50, 60, 90, 120 grains per diem before there was a *sign* of cinchonism, and that was of a very unusual sort. After this the quinia was gradually reduced in quantity to about 40 grains a day. The intermittent fever had about subsided, and her condition was not so distressing. About this time, too, the menses made their appearance—a happy omen, as I thought, for it was encouraging to know that a female organism, which had maintained its integrity through all this contest of conflicting forces sufficiently to re-

assert itself, was hopeful still. During this period little was done except to encourage the flow, support the system as best we could, and prevent a relapse of fever.

By the time her period was over, she was prevailed on to submit to the introduction of a catheter and a general exploration of the pelvic organs. They were all found to partake of the general irritability of the system, and the peculiar hyperæsthesia of the skin of the back, neck, shoulders, and posterior aspect of the arms. So exquisite was this sensibility, that the mere touch of the parts gave pain, and the passage of the finger into the vagina, however gentle, produced great distress. The uterus was found slightly prolapsed, the cervix somewhat elongated, and the os acutely sensitive. Much difficulty was experienced in passing the catheter. The tract of the urethra was keenly sensitive, as also the whole surface of the bladder. *No urine for 24 days.*

I now had an opportunity of doing what I had long contemplated, namely, to *inject the bladder with warm water and cantharides*. At first, half pint water, with tincture cantharides, gtt. xx, were used. This was retained about an hour, and passed off in the natural way, with some pain and tenesmus.

25th day.—Introduced catheter with some difficulty; injected about a pint warm water and tinct. cantharides, gtt. lx. But previously drew off about two tablespoonfuls of unmistakable urine—*the first for 25 days.*

26th day.—Catheterism again; less difficult; one spoonful urine. Repeated injection, gtt. lx, to one pint.

27th day.—Catheterism and injection once more. Drew off half teacup urine.

28th day.—Passed over a pint without aid during the day and night.

After this the trouble did not return. Appetite and strength were very slowly regained. In a word, convalescence was *very tedious*.

I must not omit to say that cupping had been practised in an imperfect way as long as galvanism rendered the surface capable of bearing it. Blisters covering the whole spine were drawn repeatedly up to the occurrence of the menses. And for a week or 10 days previous to that event, by Dr. Cullen's advice,

she had taken ergot and belladonna (atropia) with a view to their well known effect on the capillary vessels in relieving congestion. These last remedies were not given in doses so large, proportionately, as the other medicines she had taken; but I do not doubt their good effects in most of such cases. What merit should be ascribed to the cantharidal injections I am unable to say. My hope was that they would stimulate the lining of the bladder, and thus by *continuous* sympathy arouse the kidneys, as well as by absorption act in the way of diuretics. This was entirely a new idea as far as I am yet informed. Its value can easily be tested by future experiment. It is not for me to say, as is too often done, that the last remedy used was the first to do good.

It was found, upon inquiry, that this young lady, like thousands of others in our land, had long had "something the matter with her spine;" had always been regardless of such hygienic rules as apply to her sex; and had never complained, unless she was "half dead."

The eruption mentioned has disappeared, but has come repeatedly since. Have never made out what it had to do with her sickness. This disease may have been mistaken for cerebrospinal meningitis—*all but the cerebro*.

I take the liberty of adding the subjoined letter as giving a part of the further history of the case, after it went out of my hands:

RICHMOND, Sept. 1, 1874.

Dear Doctor:—Some weeks after your patient, Miss ———, recovered from her long and remarkable attack, she came under my charge with similar but less grave symptoms than those for which you treated her, and I send you this hasty sketch of her case, thinking it would be an interesting supplement to your notes of the prior attack.

The exciting cause of the return of the trouble was a long walk up and down our hilly streets, "shopping" for herself and friends, which, during the day, made her feel "weary in the back," and by night developed the dreadful pain and agony in the spine, with the hyperæsthesia of back and shoulders, and the erythematous blush described by you. There was at once a diminution of the renal function, and in twenty-four hours a

complete suppression of urine. The skin was dry and hard, but its temperature (except in the first day or two of fever) was normal. The bowels were constipated and difficult to move by a cathartic. The tongue and pulse remained normal. There was, as when you saw her, an inexplicable freedom from any uræmic symptoms, in spite of the suppression of the functions of the two great emunctories—the kidneys and skin—and no other organ vicariously doing their work. The brain was entirely free from any oppression, and the mind was clear and active in moments of greatest suffering. Insomnia was constant and persistent in spite of large doses of chloral and bromide of potassium (I did not use opiates for obvious reasons). Her spirits were very variable; at one time she was gay and anxious to get well; at another, despondent and reckless as to her fate. Her symptoms also would vary greatly from day to day; sometimes almost disappearing, and then returning with augmented suffering.

There were two symptoms which always signalled an increase of her pain, &c., namely, a harsh, brazen, laryngeal cough, and pain in the eyes, with lachrymation.

The first time that I visited her I found that she had a high fever, just as she had in your attack; and remembering what trouble you had to prevent its return, I determined to try large doses of quinine at once, and directed that she should take thirty grains as soon as the fever went off, and twenty-five more in five hours. There was only a slight return of fever the next day, when the same doses were repeated, but no return of fever.

The treatment of her case consisted mainly in faradization of the spine daily. At first she declared she could not endure the pain it gave, but after a few applications she not only became reconciled to it, but was anxious to have it every day, as it relieved her so much. Chloral and bromide of potassium were given as required until sleep was produced, and the following prescription:

R: Ext. Nucis Vomicæ grs.xv.
 Zinci Phosphidi..... grs.ijj.
 Pulv. Althææ..... grs.xv.

M. et fit in pilulas No. xxx.

S: One pill three times a day.

For two weeks I was not able to perceive any change in her

condition, except the freer action of the kidneys after the first four or five days.

In the beginning of the third week there was a marked amelioration of her condition, which continued to improve until she left for home at the end of the fourth week.

There was one part of the treatment which I am convinced did much to relieve her, and that was *rest* upon her *back*; for whenever she attempted to sit up or walk across the floor of her room, the pain and hyperæsthesia instantly returned, and as long as she kept upon her back she had comparative ease.

On examining the literature of Anuria, I find that Black, on "Renal, Urinary and Reproductive Organs," states that Dr. Parr relates a case which occurred in his practice, in which no urine was secreted for six weeks; and Haller, a similar case, which lasted twenty-two weeks. In Parr's case, there was vicarious elimination by a sweat for a day or two. In the "Philosophical Transactions," Dr. Richardson makes mention of a case of suppression in a youth of seventeen, who had never made water in his life, and was perfectly vigorous and active.

Dr. Dawson, in the "Philosophical Transactions," narrates a very remarkable instance of suppression in a woman who did not pass a drop of urine for *fifteen* months. During this period she frequently vomited every day. If the vomiting came on after eating, what was rejected seemed to be mere urine, without any mixture of what had been taken. Her legs began to swell, and her breast discharged a water with a urinous smell. At length uncommon pricking pains were felt down the back and loins, with great heat, and the next day she passed three ounces of thick, slimy water, attended by sharp pain. The next day she passed pure urine. Afterwards she would have suppression for a month or two at a time without any vomiting, but always with swollen legs.

I fear I have tired you with this long letter, but the interesting nature of the case must be my excuse.

I am yours very truly,

J. S. DORSEY CULLEN.

To Dr. A. W. FONTAINE, New Canton, Va.

Clinical Reports.

Case of Spasmodic Stricture of the Oesophagus. By ANDREW H. SMITH, M.D., New York, Surgeon to the Throat Department of the Manhattan Hospital, and Physician to St. Luke's Hospital.

Thomas Cooley, Ireland, aged 34, gas-fitter, applied at the Hospital September 10th, 1873, stating that for two or three months past he had had difficulty in swallowing, which had increased to such an extent that for the previous 24 hours he had not been able to swallow anything—even a glass of water. He first noticed that, while eating, a small morsel of food would occasionally be arrested in his throat, and for a long time resist all his efforts to swallow it. This occurred more and more frequently, until he became afraid to attempt to eat solid food; and later, semi-solid substances, and, finally, liquids refused to pass, and were rejected through the mouth and nose.

He suffers constantly from hunger, is much emaciated, and his countenance has a distressed and anxious expression. Examination of the throat externally and by introducing the finger gives negative results, as does also the laryngoscope. Auscultation shows slight consolidation of the apex of the right lung. On introducing an olive-shaped bougie three-fourths of an inch in diameter, it was momentarily arrested at a point just below the level of the cricoid cartilage, but a very gentle pressure persisted in for a few seconds served to force it through. Somewhat more resistance was experienced in withdrawing the instrument—probably owing to its shape, but no pain was complained of. A glass of water was swallowed immediately afterward without difficulty, and the patient was dismissed with instructions to report again in two days.

At his next visit he stated that he had been able to eat very soft food in quantity sufficient to appease his hunger, but solid food would not pass the obstruction. For some time after this the bougie was passed regularly every second day, but the difficulty of swallowing solid food continued, with little or no improvement.

Recognizing the purely spasmodic character of the affection,

I tried hypodermic injections of atropia over the seat of the stricture, and for a time this seemed to be beneficial, at least the patient persuaded himself that he could swallow better. But after a trial of several weeks the gross result was not appreciable, and I determined to try electricity with the hope of exhausting the undue irritability of the muscular tissue. An œsophageal electrode was introduced until the sponge covering the point was grasped by the stricture; when a strong faradaic current was applied for about half a minute, and this was repeated three or four times at each sitting.

Though during the first few days of this treatment the patient seemed to swallow somewhat more easily, yet an extended trial yielded no definite result. The same was the case with the local use of nitrate of silver, which it was thought might blunt the sensibility of the mucous membrane, and thus diminish the tendency to spasm. With the same view, very large doses of the bromide of potassium were given, this salt having the property of producing anæsthesia of the fauces.

All these expedients having failed, I determined to introduce a full-sized bougie and retain it in situ for several minutes at a time at each sitting. To do this, however, with the ordinary bougie, is exceedingly distressing to the patient. The head has to be held back in a very uncomfortable position, and, swallowing being impossible, the saliva accumulates in the pharynx, and, flowing into the larynx, causes strangling. To obviate these difficulties, I had a conical bougie made about five inches in length, with a hole through the upper end, through which a cord was passed. This instrument was passed down until the top of it was on a level with the base of the tongue, where it was held by the patient's finger, the cord preventing the possibility of its being swallowed, and affording at the same time the means of withdrawing it. The patient was thus enabled to sit with his head bent forward in an easy position, and the saliva flowing readily from the mouth, all strangling was avoided. The bougie was introduced every second day, and left in position from four to eight minutes each time.

I think that more benefit was received from this than from any other measure to which I resorted, but still complete success has not been attained. The patient has still some difficulty

in swallowing solid food, but he eats easily sufficient to satisfy his hunger, and he has regained nearly all the flesh he had lost.

Cases of spasmodic stricture of the œsophagus are frequently met with, but it is very unusual to find one so obstinate as this. As a rule, they yield readily to the use of bougies, due regard being had at the same time to the general health, which is usually impaired. There is a case, however, related by Ch. Lesbini in a thesis published in Paris in 1873, which occurred in the practice of Bouchard, and in which all treatment proved unavailing, the disease continuing for many years. The patient, a naval officer, was obliged to resign his commission and retire to private life, not so much from inability to continue his duties as from the fact that his infirmity made his presence at the ward-room table disgusting to his fellow-officers.

A Case of Traumatic Tetanus—Recovery. By A. ATKINSON, M.D., Baltimore, Md.

February 12th, 1874.—White man, æt. 19 years, stuck a four-penny nail in the sole of his left foot. On 17th walked four squares to my office to have a small abscess opened at the seat of injury. But little hardness about wound, and no foreign body found; abscess was freely opened, and the tincture of arnica applied *around* the part. He continued to walk until 27th, when, indulging in drink, he got very wet from imprudent exposure.

February 28th.—I was called to see him very early in the morning, and found his jaws tightly locked—almost insufferable pain in the region of the diaphragm and behind the sternum, and breathing very labored: Gave him at once half a grain of morphia, and applied six wet cups, freely scarifying the part along the spine, followed at once by the application of a very strong liniment of turpentine, ammonia and aconite the whole length of spinal column. Gave fifteen grains calomel to open the bowels. The muscles of the back, neck, and abdomen were as rigid and hard as boards.

At 4 P. M., same day, no action by bowels. Gave two tablespoonfuls castor oil with half drop of croton oil. To relieve pain, gave twenty grains chloral with thirty grains of bromide

of potassium in an ounce of camphor water every two hours until pain should lessen or patient sleep.

February 29th, 6 A. M.—Bowels still unmoved, and great tympanites; gave enema of a pint of warm water containing two ounces of castor oil and one ounce of turpentine, continuing the chloral and bromide of potassium through the day. Bowels were freely moved by 10 A. M. of several offensive tarry stools. The pain and stiffness of neck and muscles of back and abdomen continued; the body was often raised above the bed, resting only on the occiput and heels. Spine very sore from cups and liniment. A belladonna plaster, 4×12 inches, was applied hot from nape of neck as far down as it would reach, and kept there. Urine was retained from spasm of muscles, as shown even before the turpentine was used. Water drawn off three times a day, though bladder was as tense in an empty state as when full.

March 4th.—Pain greatly lessened, and the opisthotonos nearly gone, but great restlessness. Chloral failing to produce sleep, opium and camphor were given, two grains of each every two hours until he slept soundly. Strength kept up by milk, in which bread was soaked,—given through a gum tube when the spasms relaxed sufficiently; bowels kept open every two days by enema of warm water and mustard, using chloral and bromide of potassium during the day, and the opium and camphor at night. When pain was not so severe, but restlessness predominated, he was given 15 grains assafoetida with thirty grains bromide of potassium three times daily in place of the chloral or opium. As the patient weakened, he was allowed whiskey in milk, and strong beef tea.

About the 12th day of his illness, he became very delirious—perfectly wild. This condition lasted for four days without regard to narcotics. Often it was difficult to know the state of the bladder from the contraction of abdominal muscles. During these wild paroxysms, chloroform alone, or mixed with two parts of ether, would control the spasms and compose to sleep for half hour. After four days of frenzy, he became conscious, and ate freely. Spasms and pains gone, but very feeble. Phosphate of lime and iron were given in his milk or gruel, with chloral to relieve restlessness when required.

April 1.—Patient is well, and left to-day for another State.

Half grain doses of extract of belladonna were given him the first day after the first and only dose of morphia with bromide of potassium, but soon lost its effect; so with the fluid extract of belladonna in fifteen to twenty drop doses. Tincture cannabis did no good whatever. Atropia was not used hypodermically, nor was calabar bean resorted to.

Sub-Clavicular Dislocation of the Humerus—Reduction—Recovery. Service of JAMES D. MONCURE, M. D., Med. Superintendent, &c., Church Institute, Richmond, Va.

J. C., admitted to Church Institute, August 21st, 1874, with dislocation of the head of the humerus forwards, of 26 days standing. Had been treated for fracture of the shaft of the bone during this interval. On examination, the head of the humerus was found to be firmly imbedded and immovable beneath the outer third of the clavicle. The patient was put under the influence of chloroform by Mr. J. H. McCaw, resident student, until all the muscles of the part became thoroughly relaxed. Every effort was then made to reduce the luxation by extension and counter-extension, and after persisting for 20 minutes, without success, (during which time, however, many adhesions were broken up,) pulleys were applied. But I was still unable to return the humeral head into the glenoid cavity; and as the patient had already taken as much chloroform as I deemed safe, further attempt for the time was relinquished.

On the next day, being assisted by Dr. C. Tompkins, the patient was again put under the influence of chloroform. While Dr. Tompkins held the scapula as stationary as possible, I placed the hollow of my foot in the axilla; and seizing the lower end of the humerus with one hand, the wrist with the other, I extended the arm as much as possible, and then gradually but steadily carried the arm extended above the patient's head, and then forced it across the breast, when the bone slipped into place. It was retained in position by fastening the hand to the opposite shoulder. Five days afterwards, the patient was discharged. There was but little swelling and no fever. I have seen him twice since his discharge. On September 1st, he could use the arm almost as well as ever.

Chloral-Hydrate in Puerperal Convulsions. By G. T. SCARBURGH, M. D., Norfolk, Va.

Mrs. M. P. W., in her second labor, sent for me about 9 P.M., July 21, 1873. Slight labor pains had set in during the morning, but had begun to be troublesome only an hour or two before sending for me. I found her in very good condition, except that she was thinner than usual, and her feet were somewhat oedematous. Her labor progressed well, but slowly, and at 3 A. M., she was delivered of a girl. Passing my hand into the vagina, I discovered a second child, which was delivered safely at 3.25 A. M. The womb contracted promptly and well; the placenta followed in about fifteen minutes, being forced quite to the outlet of the vagina. I remained with her until 6 A. M., when I left her "feeling very comfortable," she said, and entirely satisfied with her condition.

I was suddenly recalled at 7.30 A. M., with the intelligence that she had "a fit." On reaching the house a few minutes after, I found her with a second convulsion—very violent in character. Her sister stated that she had fallen into the convulsion without the slightest warning, having been talking cheerfully only a few minutes before. I immediately bled her to the extent of about sixteen ounces. Her pulse prior to the bleeding was 86, and ten minutes after there was no perceptible change.

At 8 A. M. she was seized with another severe convulsion, followed by two others, equally violent, at intervals of about ten minutes. At 8.30 I gave her ten grains of chloral-hydrate, repeating it at 9 A. M.; during this interval she had another, though less severe, convulsion. At 9.30 repeated the chloral, and again at 10, 11, and 12 o'clock, in same dose. At about 12 M., she fell asleep and slept with tolerable quietness until 3 P. M., when she was suddenly seized again with a convulsion—less severe, however, than the first one. Having left her at 2 o'clock, I was sent for and reached her before the convulsion had fairly passed off. I immediately began the use of the chloral again, repeating it in ten grain doses every half hour until eight doses were taken. She had one slight convulsion after the first dose. At 7 P. M. she sank into a profound slumber,

which continued until 1 A. M., when she awoke, and in response to an inquiry, said she "felt better." She took some broth and another dose of chloral, and quietly went to sleep. She awoke at 6 A. M., with her mind perfectly clear. She recovered promptly and well. At no time did she complain of any head pain, either before, during, or after her labor. The afternoon of the 23d her urine was highly albuminous.

I feel satisfied I ought to have pushed the chloral in the first instance, and am convinced if I had done so there would have been no return of the convulsions.

A Case of Sunstroke followed by Aphasia—Death. By P. B. PORTER, M.D., Baltimore, Md.

I was called August 11th, 1874, to D. McM., brakesman on Balt. & Ohio R. R. Found him lying down, and suffering from a "sunstroke," with loss of speech. Yet he recognized me by a smile, and nodded correctly when I questioned him. He was also able to walk about his house. This condition continued until within two hours of his death. His mental faculties were intact; muscular condition good; pulse slow, but full and regular; skin hyperæmic; capillary circulation tardy; pupils of the eyes normal—responding well to light—but he evinced signs of pain about the orbits.

As external applications, I ordered hot mustard foot-bath and counter-irritation to the nape of the neck. Internally, gave blue mass and extract of taraxicum, followed by sulphate and carbonate of magnesia. After these had acted, he was placed upon iodide of potassium, grs. v, three times daily.

Aug. 12.—Much improved. Continue treatment of iodide of potassium.

Aug. 13.—Not so well. Called my friend, Dr. J. J. Caldwell, in consultation. His diagnosis was hyperæmia of the frontal sinus and anterior convolutions of the brain:—thus he accounted for the neuralgia and aphasia. Our prognosis was favorable, except for the fear of effusion from the vessels of the convolutions. Treatment continued, with addition of bromide of sodium.

Aug. 14.—Doing well at morning call; continue treatment. At 8 P. M., met Dr. C. again in consultation. Patient was found walking about the house with a lamp in his hand, attending to some household affairs; but being still speechless, he made various intelligible signs to his wife and children indicative of his wants, &c. We were so much encouraged that treatment was continued.

Aug. 15.—At 1.30 A. M., was summoned in haste to his bedside. Found him in convulsions, with stertorous breathing; pupils widely dilated, without responding to the stimulus of light; complete paralysis of deglutition; totally unconscious. In spite of all effort, he expired at 3 A. M.

Diagnosis.—Sudden effusion, as feared. We are sustained in this opinion by no less an authority than the celebrated Leyden, of Berlin, in his work on the “Brain and Spinal Cord,” reviewed in the *Chicago Jour. of Nervous and Mental Diseases*, July, 1874. He says: “As we sometimes see in cases where rapid effusion at the base of the brain has occurred, and under which circumstances the face of the patient becomes pale, pupils enlarged and coma comes on, and finally death.”

As to sunstroke with aphasia, a similar case is reported by Hammond in his *Diseases of Nervous System*, page 658.

Original Translations.

Chemical Analysis of the Milk—Indications for Artificial Nursing. J. S. WELLFORD, M.D., Prof. Materia Medica, Medical College of Virginia.

The excellent essay* of a pharmacist well known to science, M. Charles Marchand, contains matter of very great importance. Very numerous analyses of the human milk have enabled him to establish certain facts which are important to be known, and which confirm or invalidate some proceedings empirically established. He has shown, for example, that the milk of some wo-

* Du lait et de l'allaitement par Charles Marchand in 8 de 110 pages, chez J. B. Baillière, Paris.

men, although abundant, is unfit for nourishment, consequently the maternal nutrition is not always possible.

The analysis teaches that the best milk is that yielded by women from twenty to thirty years old. But nevertheless, beyond this age a vigorous woman furnishes a rich and good milk. Some nurses, considered as having a delicate constitution, have furnished him excellent milk. Contrary to a general opinion, some nurses of a pale tint, blond hair, a soft muscular system, have given an excellent and abundant supply. The milk of multiparous nurses is richer in respiratory food, and should for this reason be preferred to that of primiparæ. The milk of a pregnant woman has always appeared to be not so rich in lactine and in phosphate of lime, and is therefore defective. In case it should be continued, it is well to give the infant every day four to eight grains of phosphate of lime.

Relying on the chemical data of his analyses, M. Marchand has endeavored to ascertain the proper rules in nursing. As to the quantities, he quotes that Bouchaud has shown in his treatise that an infant absorbs by sucking—

The first day,	. . . . .	1 ounce.
The second day,	. . . . .	5 ounces.
The third day,	. . . . .	15. “
After the first month,	. . . . .	22 “
After the third month,	. . . . .	25 “
After the fourth month,	. . . . .	28 “
From the sixth to the ninth month,		32 “

This table, which states the average, suggests the requisite quantity. Less milk may be given when the child has a mixed diet, as has been recommended by the Committee of the Société des Hospitaux.

But the composition of the cow's milk and the human is not identical. The protein substances are a fourth more abundant in the cow's milk. It is therefore necessary to diminish this excess by the addition of a fourth part of water, but this would render it too poor in butter and in sugar of milk. To prevent this result, the best way is to permit the milk to settle by rest, and withdraw the lower fourth; in the other three-fourths remain all the fatty matters; a fourth part of water is then added, and then sugar; thus we arrive at the following formula:

Normal cow's milk <i>not boiled</i> , containing all the fatty substances, usually contained in a pint,	12 ounces.
Fresh water <i>not boiled</i> , holding in solution sugar, nine drachms,	4 “

We thus obtain a pint of milk whose alimentary value is equal to that of an equal quantity of human milk. It is necessary to avoid boiling the milk, which is prejudicial to the digestion of the protein substances.

But as the cow's milk contains a very large proportion of casein, which is very indigestible, M. Marchand prefers for very young children the following mixture, which has given very good results :

Cow's milk <i>not boiled</i> , containing all the fatty matter of a pint,	8 ounces.
Fresh water <i>not boiled</i> , holding in solution 10 to 12 drachms of sugar,	8 “

It is necessary, as far as possible, to prepare the mixture only when wanted for immediate use, and to slightly warm it at the moment of administering it by plunging the bottle for some moments in hot water. It has been recommended to dilute the milk with oat, rice or barley water. This is an objectionable practice. The articles mentioned yield too little to the water to give any alimentary value, while the mucilaginous principles and the boiling renders the water indigestible. Besides, these teas are thought to be nutritious, and in giving them the quantity of milk may be improperly diminished; moreover, gum arabic should not be given.

The author objects to the direct nursing of the goat, which is at the best more appropriate to a child already advanced.

Such are the conclusions to which he has been led by his chemical investigations and by his experience. They are doubtless very valuable suggestions in the difficulties of artificial alimentation, while the quantities indicated may be easily modified to suit the age of the child.—*Journal de Médecine et Chirurgie*, Aug., 1874.

Correspondence.

NEW ORLEANS, September 3, 1874.

German and Jewish Physicians.—Ethical Adjudications, &c.—Charitable to Faults.—Social Relations.—Hotel Doctors.—Medical Bills.—Negro Doctors.—Homœopaths.—Homœopathic Case of Cerebro-Spinal Meningitis, &c.—Abortionists.

Mr. Editor:—I take some shame to myself that, in summing up the race and national divisions of the population of this city in my last, I should have omitted to mention the German population, and the very large and respectable Jewish population. Several physicians in good practice and standing belong to this ancient religion and people. The German physicians are about as we usually find them in this country: some of them men of merit and high cultivation—others, the most impudent and ardent of impostors. It verges very closely upon the absurd to witness the effrontery with which one of these audacious quacks will decry the others of his coterie, and at the same time endeavor to persuade you that he alone possesses merit.

There is no tribunal here before which professional derelictions can be arraigned. The only Medical Society in the city in working order, declines to consider or adjudicate ethical questions. I really think that, in its ultimate effects, this is the better policy. We cannot legislate men to be good. Some essence or influence which touches the soul more closely and tenderly than formal legal meetings is required to effect this result. Here the medical profession has its faults and short-comings; its inevitable charlatanry; its disgusting rings, which strive to crush opposition, whether meritorious or not. But in those cities where the "code" is a perfect police regulation, no better moral condition of the profession is found. Witness Louisville, with professional athletes resorting to fisticuffs in the presence of young men studying to become physicians! Witness the late "halla-baloo" over the abortion inuendo in Cincinnati!

Perhaps there are very few cities in Christendom in which the minor, or even the somewhat grave peccadilloes of the medical

adviser are looked upon with so much charity as in this. In Washington city, I once met a Mainite medical gentleman, who, not having had an opportunity to learn his alcoholic equivalent, had overbalanced his mark. Upon recovering his sobriety, his penitence was very sore, for he feared that though his crime was committed in a far-off land, some whisperings might in some manner reach the ears of patrons implacable to sins like this. Here the community are generous to such errors, and some very excellent and successful practitioners follow the elder Darwin's suggestion to flush the sewers of the brain at least once a year with good wine.

Now I mention all these matters to show the entire freedom from restraints professional, or restraints social, of the medical profession of this city. It is to be presumed, therefore, that whatever of goodness we possess, is of spontaneous growth. There is no outside pressure to make us hypocritically assume virtues we do not possess.

It may also be stated in this connection, that the convivial and social disposition of the inhabitants renders it an easy matter for a physician of education and graceful manners to gain admission to society, and if he possess decided tact, to gain and retain a practice.

It is also to be remembered, that this is a city of hotels and boarding-houses. This has a tendency to increase that class of physicians who are commonly known as "hotel doctors." I think it may also be safely alleged, that here, at least, the tendency has been to render that class of medical men more respectable in attainments and standing than in most other cities.

The perquisites of the profession are nominally quite sufficient; substantially, they are very small. The people here have been characteristically generous in paying their medical men, and would still keep up this liberality but for the ruinous plagues which have been placed upon them. But even yet a medical bill is considered due when the service has been rendered; and your best patron does not complain if you send your bills at the first of every quarter or every month.

I do not know the number of negro doctors here. Two among them are considered respectable, and I believe some of the leading men of the profession do not hesitate to meet them

in consultation. One of this number was educated in Paris, and has amassed some money from the practice of medicine here.

The city can also boast of some six or eight homœopaths. One or two of these are down upon the programme cards of fashionable tomfoolery, and do quite large practice among this unreflecting class of humanity.

It cannot have been more than six months ago since I was ignorantly introduced to the bedside of a patient under treatment by the most fashionable and favored globule vendor in this city. I found a girl, aged 15 years, in a light epileptoid seizure. The mother told me that the "Doctor" had called the case one of cerebro-spinal meningitis. There had been no alvine dejection for nine days. Ovulation had never occurred, but unquestionable the nervous erethism present was due to her period of life and the unencouraged menstrual molimen. So they go on, frequently curing diphtheria and typhoid fever in from twenty-four to forty-eight hours.

At this time there are certain irregularities and criminalities in medical practice, which are known to exist in every urban medical community, and withal the criminal individuals may escape detection. I refer to the production of abortion. That this is done in this city is personally known to me. In two instances I have had charge of patients who had voluntarily sought operators, and submitting to procedures resulting in abortion. In one of these cases the patient continued to assert that a *sage femme*, and not a physician, committed the act. The other gave the name of a highly respected physician. Her friends denied this, and placed their suspicions upon another well known physician. I think from this case we may deduce the moral that a woman who would procure abortion upon herself is not worthy of belief, and that physicians are often wrongfully accused. I have no reason to suspect any regular physician in this city of giving the least countenance to criminal abortion.

In my next I shall speak of matters more strictly professional; that is, of points of practical interest.

ESSEMBEE.

Book Notices, &c.

[We regret that the space allowed us in this issue will permit of scarcely more than mention of titles of most of the books and pamphlets received, and a most summary expression of opinion as to their special merits.—ED.]

Physiology of Man; Designed to Represent the Existing State of Physiological Science, as applied to the Functions of the Human Body. By AUSTIN FLINT, JR., Professor of Physiology and Physiological Anatomy in the Bellevue Hospital Medical College, etc., etc. In five volumes—vol. V, with a General Index to the Five Volumes. Special Senses; Generation. New York: D. Appleton & Co. 1874. pp. 517—8vo. Cloth. Price \$4.50. (For sale by Messrs. Woodhouse & Parham, Richmond).

After eleven years of patient and industrious labor, Dr. Flint finishes the difficult task he assigned himself, and crowns his monument with the above work, which we must say without any disparagement to others is his *chef d'œuvre*. In it, one finds himself irresistibly attracted by its charming style, by the simple yet scientific manner, in which dry anatomical facts and intricate physiological experiments are treated so, that one finds it as difficult to lay the book aside as he would a Dickens or Thackeray.

We regret that at this time it will only be permitted us to announce the appearance of the book; but we hope that even this simple notice will excite the desire in medical men to read it, and judge for themselves of its great merit. The publishers deserve the highest praise for the beautiful manner in which they have issued the five numbers—which excel in print, paper and binding any work of the kind in this country.

J. S. D. C.

Electro-Therapeutics:—A Condensed Manual of Medical Electricity. By D. F. LINCOLN, M.D., Physician to Department of Diseases of the Nervous System, Boston Dispensary. Philadelphia: Henry C. Lea. 1874. pp. 186. 12mo. Cloth—\$1.50. (For sale by West, Johnston & Co., Richmond.)

The chief aim of this book is to analyze the *principles* which ought to govern the use of electricity. The first part is given

to definitions of terms, statements of electrical phenomena, descriptions of the most important of the electric batteries used by physicians, &c. The second part is devoted to the physiological action of electricity; while the third is taken up chiefly with a consideration of the application of electricity to disease.

As a whole, the book is synoptical. And so correct do we regard it in general, that, to the practitioner who has any acquaintance with the subject, we look upon this as the best manual that has fallen into our hands. But we must dissent from the opinions which have been so generally expressed as to its use for beginners. They will not appreciate its value until they will have read some fuller treatise, or else are favored with a lecturer who will adopt this as his book of syllabi—to which purpose it is admirably adapted.

Physiology for Practical Use. Edited by JAMES HINTON, M.D., Author of "Thoughts on Health," &c. With an Introduction by E. L. Youmans. New York: D. Appleton & Co., 1874. pp. xi-507. 12mo. Cloth. Price \$2. (For sale by West, Johnston & Co., Richmond).

The great excellence of this work is its elementary character, containing in general correct statements and valuable practical deductions. We are glad to learn that many of the laity are reading the work, for they can understand such plainness of style. We would be glad to know that all of them were reading it, and acting upon the advice given. Then we might reasonably hope to see in the rising generation a healthier people. What a blessing it would be to human kind could we but uproot much of the prevailing popular nonsense about the fashions in dress and exercise! We cordially commend the book before us as taking a step in the right direction, and hope that several rapidly successive editions will be required to supply the popular demand for it.

Transactions of the Twenty-first Annual Meeting of the Medical Society of North Carolina. J. W. JONES, M.D., Tarboro', President. JAMES MCKEE, M.D., Raleigh, Secretary. Pamphlet. pp. 131.

This handsome pamphlet of 131 pages contains the proceedings of the interesting and profitable meeting of the Medical Society of our sister State, which was held at Charlotte on the 19th, 20th, and 21st days of May last, with the addresses delivered, and most of the papers presented, at the meeting.

The meeting was enlivened at the outset by an address of

welcome from Ex-Governor Vance, marked by some of that eloquent gentleman's characteristic touches of humor. In the course of his remarks he said: "I am therefore instructed to say that the city of Charlotte, with all it contains of hospitality and liberality, is at your devoted service during your stay; but as was said to Satan concerning Job, 'Behold, all that we have is in thy power; *only upon ourselves* put not forth thy hand.'"

A pleasing episode of the meeting was the cordial and fraternal reception given on the last day to the delegates present from the Medical Society of Virginia, viz: Drs. Thomas P. Atkinson, Henry Latham, and L. B. Edwards. In this connection it may be mentioned that the Society appointed six delegates (among them its newly-elected President, Dr. J. W. Jones, of Tarboro') to attend the approaching meeting of the Medical Society of Virginia.

Of the addresses and papers contained in the Appendix, the first is the address of the retiring President, Dr. W. A. B. Norcom, of Edenton, which, instead of discoursing upon topics more or less general, according to the usual manner of such addresses, is exclusively devoted to the discussion of the important subject of *Hæmorrhagic Malarial Fever*, including the author's observations and experience of that most interesting disease. We shall presently offer a few comments on this valuable paper, and bring to the notice of our readers some of its more salient points.

The Annual Address of Dr. A. B. Pierce, of Halifax, is a spirited production, evincing a commendable pride in the prosperous career and steadily-growing influence of the Society, and a thorough devotion to professional interests and progress. It is chiefly occupied with a discussion of "the reciprocal relations of the medical profession to society, involving the duties and obligations of each." The speaker's complaints of the injustice done to the profession by the public in failing to protect them against the injurious competition of venders of patent medicines and instruments—in "exacting knowledge from physicians under a liability to heavy penalties, and making them obnoxious to punishment for resorting to the only means of obtaining it"—and in failing to recognize and enforce by legislation the claims of the profession to just compensation for services—will awaken a responsive echo here in Virginia, where we cannot even felicitate ourselves upon the signal advantage gained by our brethren of North Carolina in securing the establishment of a Medical Examining Board, to protect the profession against the entrance of unworthy and incompetent members.

Dr. W. J. H. Bellamy, of Wilmington, furnishes a report of an interesting case of ovarian tumor with ascites, in which the

patient was tapped 29 times, the total amount of serum withdrawn being 148 gallons.

In a paper on "Puerperal Eclampsia, Venesection," etc., Dr. R. L. Payne, of Lexington, wields the cudgel vigorously in behalf of that much vilified instrument, the lancet. He relates four cases of puerperal convulsions successfully treated by free venesection as the leading remedy, and in three of these cases, at least, such treatment was, we think, undoubtedly indicated. Dr. P. is pretty hard on the brethren who "are now nearly *frightened out of their boots* by the bare mention of their lancet," and from the point and satire of his remarks, we suspect that he had in his eye some who were then and there present. It must be added, however, that while he advocates the use of the lancet even in many cases of uræmic convulsions, he is not an extremist; for he reports a case successfully treated with chloroform and the hypodermic injection of morphia, without bleeding, and admits that he was so well pleased with their effects, that he will resort to the same remedies again under similar circumstances. (The patient was of frail and delicate constitution, with frequent and feeble pulse). In citing recent authorities in favor of bleeding in this formidable affection, he might have extended the list by the addition of the names of Professors Thomas and Lusk, of New York, White, of Buffalo, and Goodell, of Philadelphia, who have quite recently expressed themselves in favor of the practice—at least in a certain proportion of cases.

Dr. John McDonald, of Washington, reports a number of interesting cases: 1. A case of Intra-Uterine Fibroid Tumor, removed by strangulation with the wire of the *écraseur*. 2. Gun-shot Wound of Abdomen, with Peritonitis, in which a bullet had penetrated the large intestine, was discharged by stool, and the patient rapidly recovered. 3. Incised Wound of Small Intestine, also resulting favorably. 4. Vesico-utero-vaginal Fistula, of large size, closed by one operation, performed after the manner of Dr. Sims. 5. Traumatic Tetanus, successfully treated with hydrate of chloral and fluid extract of *cannabis indica* (15 grains of the former and 10 drops of the latter every hour or two until the spasmodic action was somewhat moderated, and then every three or four hours, as circumstances required), and a liniment composed of chloroform, ammonia, and camphorated soap liniment, applied along the spine two or three times a day.

Cases reported by Dr. Charles Duffy, Jr., of Newbern: 1. Osteo-myelitis (?) of Superior Maxillary Bone. 2. A case of Vesico-vaginal Fistula, in which tampons of carbolized cotton wool were used with great advantage, to prevent escape of urine, and consequent excoriations. 3. Urinary Infiltration, exhibit-

ing the beneficial influence of quinine, in the prevention of sloughing. 4. Latent Pleurisy with effusion, terminating in recovery, after the removal of 10 ounces of fibrinous fluid with the aspirator, followed by the administration of iodide of iron.

Dr. Thomas F. Wood reports a very interesting case of poisoning by a teaspoonful of "Paris green" (arsenite of copper), swallowed with suicidal intent. Although the poison was taken on an empty stomach, it did not prevent a hearty dinner being eaten an hour and a half afterwards. The usual symptoms of gastro-intestinal irritation were, in fact, almost entirely absent, and the force of the poison was expended chiefly upon the nervous centres, producing symptoms strikingly similar to those of cerebro-spinal meningitis. The stomach was emptied by a mustard emetic, and the hydrated sesquioxide of iron freely administered, and the patient slowly recovered, though nervous symptoms still persisted after the lapse of a year.

Dr. Wm. Walter Lane, of Wilmington, furnishes a report of the death by asphyxia of five seamen on board a vessel, from the inhalation of carbonic oxide gas—this gas having been generated by the slow or incomplete combustion of coal in a stove, and escaped from the stove-pipe into the fore-castle, in which the men slept. Although two of the men were taken out alive (in a state, however, of profound insensibility), they both died, in spite of the most assiduous treatment—one in twenty-six, and the other in thirty-four hours after being withdrawn from the influence of the noxious gas. It is probably not strictly correct to ascribe the fatal results of these cases to carbonic oxide solely: no doubt *carbonic acid* was likewise formed by the combustion of the coal, and must be credited with its due share in the deadly effects upon the sleeping sailors.

From Dr. Peter E. Hines, of Raleigh, we have reports of a case of Hip-joint Disease, treated with Prof. Sayre's splint, with most satisfactory results; and one of inflammation and enlargement of the knee-joint in a scrofulous child, treated with equal success by extension and counter-extension with the apparatus of Prof. Sayre. Dr. H. also expresses great satisfaction with plaster-of-Paris splints in the treatment of fractures, and relates an interesting case in which a woman, exhausted by uncontrollable vomiting in early pregnancy, and in whom nutritive enemata could not be employed, because of irritability of the bowels, was apparently kept alive for some eight weeks by the *inunction of lard*—half a pound being rubbed into the groins and the inside of the thighs and arms three times daily. Nothing was taken into the stomach except very small quantities of ice cold tea, with milk in it; most of which, however, was re-

jected. The patient gained some flesh and strength under the liberal inunction, and the irritability of the stomach having at length gradually subsided, she finally recovered.

Dr. E. Burke Haywood reports an operation for fistula in ano with the elastic ligature, the result of which seems to justify his opinion that this mode of operation is especially adapted to the treatment of the disease in question. "The advantages of the elastic ligature in this case were the little pain felt by the patient; no hæmorrhage following its application; the patient being able to go about and attend to his usual business; no constipation being necessary; no danger of pyæmia." The ligature cut its way out on the sixth day.

Dr. W. R. Sharpe, of Davie county, reports a successful case of lithotomy performed upon a boy nine or ten years of age—the symptoms of stone having commenced when he was but seven months old: and Dr. Thomas S. Duffy, of Rutherfordton, gives the particulars of two cases of apparent death. In one of these, during the performance of the operation of laryngotomy, for the removal of a pea, the patient (a child) ceased to breathe, and was to all appearance dead, but was resuscitated by long-continued artificial respiration, when the operation was successfully terminated. The other case was one of "fulminant" congestion of the brain, in which the apparent death would doubtless have been real death, but for the immediate abstraction of blood from the distended external jugular vein.

To return to Dr. Norcom's address on hemorrhagic malarial fever:

Dr. Norcom at the outset combats the opinion that this is a *new disease*, having first made its appearance in the Southern States in or about the year 1867. He says: "I am not aware that it was treated of in a monograph devoted especially to it, but it is often referred to by authors in connection with their description of malarial fevers, of which it is but a severe form." The only author, however, whom he cites, is Maclean, who appears indeed to have witnessed cases of the kind in India. But we regret that Dr. Norcom did not give citations from American authors proving the existence of the disease in this country prior to the last few years. Our own reading has failed to discover any satisfactory evidence on this point. We find, it is true, that Eberle mentions "colliquative hæmorrhages from various parts of the body" as occurring in the malignant intermittent of hot climates; that Wood mentions the stools in pernicious fever as being sometimes bloody; that Drake (*Dis. of the Valley of North America*) notices the discharge of blood from the bowels, or of a liquid resembling black vomit from the

stomach, as of exceedingly rare occurrence. But of a malignant form of malarial fever, characterized by *hæmaturia and intense jaundice*, occurring almost simultaneously, such as has been so often described of late years by Southern physicians under the names of hæmorrhagic malarial fever, hæmorrhagic icterode fever, etc., we find no mention in these authors. Nor do we in Prof. S. H. Dickinson's *Elements of Medicine*, though, as a Southern author, he would surely have mentioned it, and given a full account of it, if it had been as well known twenty years ago as it is at present. We may add that for somewhat more than thirty years we have not neglected the periodical literature of our country; and if it contained, at any time previous to the close of the late war, a description of such a form of fever, it has either escaped our notice or our recollection.

If this disease had been formerly present, is it not remarkable that the physicians of the Gulf States, to whom it is now so familiar, should have so generally spoken of it of late years as a new disease? Even Dr. Norcom admits that, after years of busy practice in a highly malarious district, *he never saw a case prior to the year 1867*; and the only positive evidence which he adduces that such a form of disease was known in this country before the close of the war, is that Drs. Winborne and Dillard, of Chowan county, saw *a single case* fifteen years ago. We think the conclusion irresistible that, if this be not an entirely new form of disease, it was formerly so rare as to be quite unknown to the great body of the profession, even in those sections where malarial fevers are most prevalent.

Dr. Norcom's definition of the disease is as follows; "A malignant malarial fever, the result of frequent attacks of intermittent, or of a prolonged and exhausting remittent, characterized by hæmaturia, hæmatemesis, epistaxis, enterorrhagia, metrorrhagia, or hæmorrhage from the gums and fauces, or by two or three of these at the same time; most distressing and incessant nausea and vomiting, and complete jaundiced condition (greenish-yellow hue) of body. The cold stage, though not always, is generally well marked, and the paroxysms oftenest recur about every ten or twelve hours, but far more frequently the fever is uninterrupted by intermission or remission."

Dr. N. objects to a definition given by Dr. Michel, of Alabama, because it notes only one form of hæmorrhage—the hæmaturia; and for the same reason he objects to calling the disease malarial hæmaturia. We think a better reason for rejecting this designation is that the disease is *not simply a hæmaturia, but a fever*; and we think Dr. Norcom's definition open to criticism in that it fails to give due prominence to the hæma-

turia, as the *ordinary and* (so to speak) *typical* form of hæmorrhage—all the others being exceptional. Subsequently he says: "The hæmorrhage occurs oftenest from the kidneys, next from the nose, and rarely from the other sources, very rarely from the gums, fauces and womb." When he particularizes his own personal experience, he states that of 11 cases observed by him during the last seven years, 9 were of the hæmaturic form, and 2 of the epistaxic. Most of the recent accounts of the disease mention no other form of hæmorrhage than that from the kidneys.

We regret that want of space prevents our obeying the inclination to follow Dr. Norcum through his account of the clinical history and pathological anatomy of this disease, as it presents various points worthy of note and perhaps of comment. One of these, however, we cannot omit noticing. We refer to the *condition of the urine* in the hæmaturic cases. Is the bloody appearance of the urine the result of a *true hæmorrhage*, or of the elimination by the kidneys of the *débris* of the red corpuscles of the blood, which have undergone disintegration in the vascular system, and set free their hæmatine? In other words, is it a *true hæmaturia* or a *hæmatinuria* (false hæmaturia)? Dr. Norcum expresses the opinion that it is sometimes the one and sometimes the other, but quotes the high authority of Professor Joseph Jones, of New Orleans, in favor of the view that it is always a true hæmorrhage. But we remark that nothing is said of the evidence of the *microscope* as bearing upon this question, though it is in truth the only evidence which can decide it. We invite Dr. Norcum's special attention to this aspect of the subject, and hope that he will not fail to determine the presence or absence of red corpuscles in the urine in all future cases which may present themselves to his notice, and thus place himself in a position to decide a question of so much pathological interest.

Dr. N. considers that there are four *modes of death* in this disease, viz: from exhaustion, from uræmic intoxication, from heart-clot, and probably from cholesteræmia—their frequency being in the order named.

With reference to the *prognosis*, Dr. Norcum speaks in a far more cheerful tone than that to which we have been accustomed from other quarters. We have been told that the mortality amounts in certain localities to 75 per cent.!—that elsewhere, under the most skillful treatment, it has ranged from 25 to 50 per cent.; while Dr. N. assures us that of 11 cases treated by him, but a single one proved fatal, and in that one the patient was *in articulo mortis* when first seen.

This brings us to the *treatment*; and here we find the all-sufficient explanation of Dr. Norcom's success in the management of this formidable disease. He utterly repudiates the plan of "preparing the system," by mercurial purges or otherwise, for the administration of quinine, holding that in this case, above all others, "delays are dangerous," and that the effective blow must be struck at once. His views in this respect are not new; they were long ago held and put in practice by Torti, Lind, Alibert, and others who have written upon the graver forms of malarial fever; but in more recent times they have been forgotten or forsaken by too many of those who have had to deal with such fevers.

The following extracts embody the substance of Dr. Norcom's plan of treatment. Supposing that the patient has been seen during the chill, and that reaction has been brought about by appropriate measures: "Then at once give him (if an adult) from $\frac{1}{4}$ to $\frac{1}{2}$ gr. acetate of morphine hypodermically. If the bowels are costive, give the patient an enema soon after giving the morphine. In twenty minutes after giving the morphine, the stomach, which shortly before would not tolerate simple water in small quantities, will now bear quinine and a moderate amount of liquid food (beef-essence, beef-tea, &c) and stimulants. At this time, then, and soon after giving the enema, if found necessary to give it, administer to the patient by the stomach, in capsules or liquid form, ten grains of quinine, and in a very few minutes afterwards double this quantity by enema. Should the patient not be able to retain it in either way (all my cases did easily), give it hypodermically, in proportionate doses. *** Let these doses be repeated every hour until at least from 40 to 60 grains or more are taken. If this amount of quinine should break the fever, its discontinuance would be sure, in all severe cases, to cause a return of the symptoms. Hence it is highly important to give every day, for three or four days, from 40 to 60 grains. *** But in from four to six hours the effects of the morphine will wear out. *As soon as we perceive it is doing so*, we must give another injection, and this must be kept up at these intervals for two or three days. *** The patient during all this time must have all the beef tea and chicken tea, oyster soup, etc., he can possibly digest, as well as good brandy or whiskey, at intervals varying from one to three hours. *** *I have never given a purgative in this disease.* I would do so if I could get its good without its bad effects; but, except one, I have never seen a case of this disease, so fearfully prostrating is it, in which I did not think purgation would tend greatly to bring about a fatal result. I generally give a mild purgative as convalescence begins."

Dr. N. never gives astringents to control the hæmorrhage, finding it unnecessary if the "abortive" treatment be vigorously carried out. Rubefacients and dry cups over the stomach and kidneys he approves, but blisters he repudiates, "for the blistered surface would probably prove another source of hæmorrhage."

In concluding this notice of the Transactions of the North Carolina Society, we cannot refrain from expressing our regret at the numerous typographical errors by which it is disfigured. We shall not undertake to particularize them: the reader will find them on almost every page.

L. S. J.

Transactions of the Medical and Chirurgical Faculty of Maryland, Seventy-fifth Annual Session, held at Baltimore, Md., April, 1874. HENRY M. WILSON, M.D., *President*; WILSON G. REGISTER, M.D., *Secretary*.

We greet with great pleasure the volume containing the Transactions of this most ancient and respectable body. For the usual period allotted to the life of man, and for much more than the life-time of most Medical Associations, the Maryland Faculty has come together in annual session, and generally has given to the world a valuable contribution to the literature of medicine.

The present volume is worthy, in some respects, of special mention. Some of its papers bear the marks of more than usual care, and more thorough and better digested than we are accustomed to find under like circumstances. Particular attention will be called to these papers at the proper time.

The address of Dr. Lewis H. Steiner, being the "*Annal Oration*," is a scholarly production, which does no discredit to its author, or to the Society for whom it was prepared. Such compositions can so rarely claim the merit of originality, that we find it impossible to submit them to any severe criticism, and are always satisfied if they offend not the rules of good taste. Such we may truly say to be the case with the oration under consideration.

The Report on Surgery from Prof. Christopher Johnston, is compact in dimensions, and brings up various objects of interest. A very good point is made of the triple triumph of surgery. The patient under chloroform with Esmarch's bandage controlling the hæmorrhage; and Chassaignac's drainage tubes carrying off the septicæmic poison; and yet the Professor very properly remarks that Esmarch's plan is not a bloodless operation, for the subsequent oozing often makes it anything else; but it should be called a "bloodless method of operating." There may

be some doubt as to the propriety of such long-continued pressure on the tissues, and especially where great nervous trunks are involved.

The report, after alluding to other bloodless methods of operating, such as with the use of the "ecraseur," and more particularly by galvano-cautery, suddenly leaves the field of practice, and launches forth into the great sea of speculation, as to the origin of cancer; a voyage which ends, as usual, in vague wanderings over unknown waters, not being able to show even the floating leaves and flowers of approaching land.

Says Col. Woodward, U. S. A., whose opportunities have been on the largest scale, "I make no attempt to solve this most difficult of all pathological problems; the time has not yet come when it is possible for any one to tell *why* cancers originate, or *how* they may be prevented or cured."

Mr. Campbell De Morgan, whose lecture on this subject attracted more than usual attention, confirms our ignorance of the pathology of this terrible disease in the following words: "The feeling presses on me, that in all that relates to the nature and cause of cancer, we want sufficient and accurate data on which to base our arguments."

All reports on surgery in these days of ingenious mechanism, are expected to close with a "new splint;" and hence we have *Simmons' Suspenso-Extensory Splint*, combining all the advantages, &c., &c., lithographed for the benefit of the reader—the best one until this time next year, when the last new invention will in all probability take its place.

The Section on Practice and Obstetrics devotes its entire space to the consideration of the medical uses of alcohol—a subject unfortunately selected, inasmuch as we find two other contributions on the same subject, which, after all, leave the mind in a perplexed state of dubiety not satisfactory. Anstie and Dupré tell us that alcohol is not eliminated, but "remains in the system as life-supporting, life-giving force," while Parks, Subbotin and others, deny that it plays any part in the formation of tissue.

The same discrepancy exists as to the pathology of alcohol. Dr. Dickinson, of St. Georges Hospital, quoted by the reporter, sums up as follows: "Alcohol causes fatty infiltration and fibroid encroachment; *engenders tubercle*; encourages suppuration, and retards healing." What becomes of the almost unanimous opinion of the profession as to the value of this agent in tuberculosis? True, Dr. Dickinson makes his deductions from post-mortems on one hundred and forty-nine *liquor traders*; but as we are disposed to think that there is much less liquor drunk on the *selling* than on the *buying side* of the counter, the learned

Doctor's observations might have told another tale if he had have selected the drinkers rather than the traders as the subject of his observations.

This report at least tells us one thing, which, if true, is worth knowing—that is, how much a man may drink without hurting himself. Anstie fixes “3 ounces of proof spirit as the quantity an adult can take without injury;” and the reporter says, “it may be laid down as a rule for the guidance of people, that one and a half pints of ale, containing 5 per cent. of alcohol, or a pint of claret or other light wine, containing 10 per cent., is the exact amount which may be taken without detriment, for dietetic use.” Unfortunately, none of these accurate observers tell us *how often* we may take these very liberal potations without bad consequences.

The Report of the Section on Materia Medica, &c., is not without interest. It calls attention to Creuse's tasteless preparations of iron, which enable us to combine the vegetable bitters with iron without fear of precipitating the tannin, but which, we fear, injure the therapeutic value of the old styptic tinctures in the treatment of diphtheria, erysipelas, &c.

After a notice (not very original) of croton chloral and its uses, the report closes with a few interesting paragraphs on the Eucalyptus Globulus, the Australian remedy and antidote for malaria, and which promises better results in such diseases than anything yet discovered since the introduction of the “Peruvian bark.” The report shows that it is a magnificent tree, of rapid growth, easily cultivated, and most valuable as a hygienic as well as therapeutic agent. Its remarkable quality of absorbing water, enables it to act as a powerful *dryer* of marshy lands, and it is here stated, as an evidence of this, that seven years ago 13,000 trees were planted in a most pestilential district near Algiers, noted for its fierce fevers, and the result has been entirely to eradicate this foul poison from that time to this. The same results have occurred in the paludal districts of Cuba and on the Cape Coast of Africa.

There can be hardly a doubt as to the therapeutic value of the tincture of the Eucalyptus leaves; and a “camphorous” liquid, called “*Eucalptol*,” seeming to possess all the active virtues of the leaf, can be easily prepared, and should be at once taken hold of by the pharmacist. This is, in our opinion, a very important matter, and should be earnestly investigated by the profession.

The Signal Office at Baltimore contributes charts giving the meteoric condition of the atmosphere at that point for nearly four years. Such memoranda will find their value in due time, and may become the basis of most important facts.

We are much pleased with the report from the *Section on Anatomy and Physiology* by Prof. Miles. The whole paper bears marks of labor and research; and although its principal topic is upon the functions of the brain, giving results of experiments by Ferrier, Fritsch and Hitzig, Northnagle, of Freiburg, and others, and leads us into the depths of profundity and contradiction; yet it is by such efforts alone that we can ever hope to fathom the wonderful phenomena of the nervous centres, and reach at last to definite conclusions.

Two more papers on *Intemperance*, pro and con, as the lawyers say, add to the bulk of this volume. The usual arguments are used on either side, and the only point which made much impression upon us was, that the source of inebriety was to be found in the *solar plexus*. Whether we will stop the love of liquor inherent in the human race, by this discovery, is still doubtful.

We pass over one or two short papers and stop to notice for one moment the article by Prof. Chancellor on *Medical Education*. His deductions are good, although not original; to lengthen the term of instruction, and to elevate the standard of requirement in the schools. To these sensible remarks we would add, the advisability of stopping the underbidding for students, which goes on through the land, offering inducements to members of Congress (black and white), State Senators, Master Masons, sons of physicians and clergymen, editors of newspapers, &c., &c., to appoint beneficiaries (so-called) to those actively competing Colleges, who thus swell their ranks, without regard to qualifications.

It is a relief, after passing through so much heavy matter, to find something jocose, upon which the mind may rest with a sense of comfort. Dr. Uhler's paper on *Little People as an Aid to Diagnosis and Treatment* is the document alluded to. He says that Lithotrites, Endoscopes, Rectoscopes, &c., may do much good; but give him a bright child from five to thirteen years and make him run his little hand up the rectum (especially if instructed in the Kinder garten method), and ask him what he feels. The ingenious author thinks that he would tell of wonderful things, but we suspect the youthful investigator would sum up the whole matter in one word, "nasty."

A very good description of the small-pox epidemic of '71, '72 and '73 is given by the resident physician, Dr. Conrad. His temperature tables are interesting, but in spite of his thermometer, his results are unusually bad, although he certainly was not wanting in efforts to diminish the mortality, not forgetting vinegar, the hyposulphites and zylol.

The last paper, by Dr. Caldwell, of Baltimore, we suspect is a very good thing; but as all the middle has been taken out, leaving us nothing but a piece of the head and tail, we will not venture on any criticism of the small remainder; and will close our notice by saying, that altogether, this is one of the best publications emanating from such a source we have seen. The truth is, that the main result of these Society meetings is to bring the profession together and promote harmony and good feeling, and it is too much to expect very learned and elaborate contributions from those who have attended the sessions with the hope of getting some relaxation from work—some rest to the mind.

McC.

The Toner Lectures, Washington: Smithsonian Institution.

Though the printer says he has already too much copy in hand, we must call attention to these Lectures, which have been established by the munificent liberality of Dr. J. M. Toner, of Washington city, to "encourage the discovery of new truths for the advancement of medicine."

Lecture I, "On the Structure of Cancerous Tumors, and the Mode in which Adjacent Parts are invaded," by J. J. Woodward, Asst. Surg., U. S. A., delivered March 28, 1873, has already become familiar to the profession throughout the country as pretty conclusively establishing the local development of cancer, and that the constitutional contamination is a subsequent process.

Lecture II, "On the Power of Man," was delivered by Dr. C. E. Brown-Sequard, a synopsis of which, though an imperfect one, was published in our May number.

Lecture III, "On Strain and Over-action of the Heart," by J. M. Da Costa, M.D., shows with certainty that not unfrequently functional cardiac troubles may develop organic lesion of the heart.

The Cincinnati Case-Record Co. has recently published a second edition of the *Physicians' Case-Record and Prescription Blank Book*. It is needless to argue in favor of the value of keeping records of cases; this book is valuable in furnishing the proper blank forms in a convenient shape. We might suggest that had it a place for the index of names of patients, it would be an improvement.

Proceedings of Societies.

RICHMOND ACADEMY OF MEDICINE.

August 20.—**The Committee on Public Health** reports that in no previous year since 1870 has the July mortality been so small. In July, 1871, there were 194 deaths; 1872, 216; 1873, 251; and 1874, 180. The mean temperature for the month, 1873, was (83.58° F.) about 2.8° lower than for July, 1873—which might suggest that the lessened mortality was due to the more moderate temperature, but for the fact that, though the temperature of June, 1874, was $2\frac{1}{3}^{\circ}$ higher than that of June, 1873, the mortality was yet $22\frac{1}{2}$ per cent. less.

Reports received from 19 regular practitioners show that there was decidedly less sickness (and that of a generally milder type) than usually occurs during July. One reporter observed a *typhoidal* tendency in diarrhœa, dysentery, &c.; another, a tendency to congestion and collapse; another to continued and remittent fevers—the latter more prone to relapses, and but little influenced by quinine. Another reports a number of cases of fever, hard to classify, lasting from 4 to 12 days, with prominent gastric symptoms, without regular remissions—all the subjects (but one) under 12 years old—which would probably be classed *malarial*, but the reporter does not so regard them.

The 19 reports show that, among other diseases, there were, of *typhoid fever*, 25 cases—only 1 fatal; *malarial fevers*, 115—none hæmorrhagic; *puerperal fever*, 1—following abortion, terminating in recovery; *dysentery*, 95—only 1 stated as chronic; *diarrhœa*, about 150—a large proportion of the cases being *infantile*; *cholera morbus*, 26; *cholera infantum*, about 40. One reporter mentions “an unusual run of cases of *chancre*.” [There is reason for believing that there are many cases of *venereal* at this time in the city among the usual subjects.] Another reports “6 cases (all recovering) of singular *swelling of cervical glands*, involving face, scalp and eyelids”—the swelling of the eyelids being sufficient to close them; one case followed recovery from *typhoid fever*.

One reporter used *oxide of zinc* in 4 cases of infantile diarrhœa, “without any other apparent benefit than that resulting from the use of bismuth;” it was “given up, and the ammonia treatment (see *Monthly*, July No., p. 226) adopted with apparent good results from the first in each case.”

Under Reports of Cases, Dr. W. W. Parker spoke of an old lady, with bronchitis, whose *only daily nourishment for two months preceding death* was 3 gills of milk.

Dr. Parker was recently called to a *child two months old, to whom the mother had given morphia sulph., gr. one-fifth, one night to stop his crying.* He had a convulsion, and when Dr. P. saw him next morning, frothy mucus was accumulated about the mouth and nostrils. The usual remedies were continued for at least two hours without apparent effect. During the afternoon, however, warmth returned to the extremities, and the child nursed and was apparently doing well, but died next morning.

Dr. C. Tompkins, as deputy coroner, was called to a colored nurse who, in her 8th month of pregnancy, feeling uneasy, went to the water closet, and *within a half hour gave birth* to a child that did not breathe. The pain of parturition, she said, was like that of painful defecation. Being unmarried, and not wishing the family with whom she was living to know the circumstances, she at once secreted the child, and in a few minutes more returned to her duties as nurse, without being suspected for a time by the family of having been in labor. She has experienced no special trouble since, except that she has been put under arrest until it can be ascertained whether or not the abortion was criminally produced, of which there is no evidence.

Dr. F. B. Watkins, by request, detailed some of his experience with the use of

Gelseminum and Eucalyptus. In a case (negro) of well marked phthisis, he gave *tinct. gelsemini*, gtt. x—xxx thrice daily, reducing the pulse from 130 weak beats to 80 per minute, and improving its quality; appetite also improved, and the man became fat and strong. Dr. W. stated that Dr. Anderson had related a case in which, through mistake, gtt. clxxx were given in three doses, which permanently broke up an obstinate intermittent fever. Taking the hint, Dr. A. had derived benefit in his own case. Its action is less prostrating than *veratrum viride*. Regarding *eucalyptus*, he had successfully employed the tincture (5j, 4 or 5 times daily) in two cases of obstinate intermittent fever. In two patients, about 14 years old, of typhoid fever, he was pleased with the combination of tincture gelsemin., gtt. iij, and tincture eucalypt., gtt. x, with spts. ætheris nitrosi, *pro re nata*.

Dr. L. S. Joynes objected to the size of the required dose of eucalyptus, since the taste is so very nauseous.

Dr. J. B. McCaw said *gelseminum* had been employed in the South as an effective antiperiodic for years; but its action is uncertain and sometimes dangerous. He knew of three deaths that were caused by large medicinal doses. The pill bearing his name, which is sold by certain Northern firms, is from a pre-

scription made years ago, and is composed of gelseminum, quinia, arsenious acid, iron, and pepper. Dr. McC. has tried *eucalyptus* in three cases—in one, because of intolerance of quinia, for six days, without perceptible good; and in two others, because any preparation of bark caused urticaria, eucalyptus was used, but without benefit. Australians prepare and use a resinoid, *eucalyptine*.

September 3rd.—**Effects of Dentition upon Health** was the subject for discussion. A member said he had seen the statement that late dentition was not unfrequently indicative of the scrofulous diathesis.

Dr. F. B. Watkins remarked upon the great infant mortality due to teething, and the social and political bearings of the subject. Dentition being a physiological process, he could not see why it should be so fraught with danger to *human* life, while to the lower animals the danger is comparatively nothing. In the human subject, the effect of dentition always disturbs the system. Even the eruption of the molar teeth is not always free from constitutional disturbance. Beside the tense, swollen and red gum, as among the many phenomena attendant upon dentition, ulceration of the gum often occurs, beginning as a small vesicle which, bursting, leaves an ulcer. As for treatment, the diarrhoea which often occurs should not be interfered with so long as it is not excessive; for it acts as Nature's derivative. Should nervous symptoms occur, and if the tooth is *nearly through*, lance the gum thoroughly, unless there be ulceration; in this event, Dr. W. prefers light scarifications, and ice, ice water, and cool demulcent drinks. The statement that is common with those who oppose lancing, that if the tooth be not near the surface, a cicatrix will form, through which it will be more difficult for the tooth to cut, is fallacious. On the contrary, the cicatrix is not so resisting as the original gum tissue. Even lancing long before the tooth is near the surface, is oftentimes judicious as a scarifying agent.

Dr. R. T. Coleman thinks that much infantile sickness is due to bad attention. Of course every care should be taken to secure pure air, cleanliness, &c. We should pay more attention to dietetics. Nothing is comparable to mother's milk. When this is denied, experience has taught that the best substitute is cow's milk; but since it contains more casein, &c. than human milk, a fair imitation may be made by diluting cow's milk with water, to which cream and sugar of milk are to be added. In numerous instances, this substitute will do well. But if this fails, nothing can decide the question except careful experiment.

Not unfrequently we will find that a little gelatine boiled in water, to which rice flour, milk, water and cream are added, will do well. Sometimes casein is the troublesome element in an artificial food; then cream with barley water or green tea, or racahout prepared with water and cream may serve a good purpose. Sometimes milk in no form will agree with the child; then we may try "bloody beef gravy," prepared by expressing the juice from a thick steak which has been exposed for a few moments to the heat of live coals of fire. This gravy, slightly seasoned, and given with the crumb of good wheat bread, is an excellent food. However, if the jaw teeth are cut, grated raw beef may be given. Pepsin is a most valuable auxiliary when there is a weakened digestion. When lancing is required, the incision should be of sufficient size to liberate the crown of the tooth. In lancing the eye-tooth, Dr. C. carries the lancet down on both sides of the tooth, so as to completely split the gum both on the inside and outside.

Dr. O. Fairfax remarked that it is not a fact that dentition is always unaccompanied with trouble in lower animals. Puppies, &c. sometimes have convulsions from this cause.

Dr. W. W. Parker thinks it is not required to make an incision of *immense* size in lancing the gum. We know how painful and annoying is a very small ulcer or abrasion in the mouth.

Dr. J. B. McCaw remarked that more study should be given to the dependence of defective dentition upon defective nutrition. Syphilitic, tuberculous and serofulous diatheses render the assimilation of food imperfect, and as results we have rickets, delayed and imperfect dentition, &c. False hygiene, bad ventilation, bad diet, bad medication—all give rise to cachexiæ, of which defective dentition is a result. The extremely free use of mercury in former days had a ruinous influence upon the constitutions of individuals. In the treatment of defective nutrition, fresh air is of the first importance, and thus trips to the mountains do good. Cod liver oil and the phosphates recommend themselves in the several cachexiæ.

Dr. Fairfax has used inhalations of chloroform for the relief of convulsions occurring during the eruption of the teeth. Regarding lancing the gums, he knows of two deaths resulting from it.

Dr. Parker, in alluding to the remarks of Dr. McCaw, remarked that it was syphilis and not mercury that takes off so many noses, &c.

Dr. Coleman, in reply to a question, said he was opposed to the use of farinaceous food in young infants.

Editorial.

MORBID IMPULSE.

We have read with undivided attention the several papers by Prof. Hammond on *Morbid Impulse*; but differing *in toto* with him in regard to certain of his suggestions, which we cannot but look upon as *dangerous to society*, we feel it a duty to raise a voice in opposition, and to urge a more humane course than he recommends. Did the suggestions emanate from a less eminent and authoritative source, we would, perhaps, pay less attention to them, and, indeed, we might even ascribe them to the dictations of a "morbid impulse."

Accepting Dr. Hammond's definition of Morbid Impulse—"a condition in which the affected individual is impelled consciously to commit an act which is contrary to his natural reason, and against his normal inclinations"—we cannot agree with him in the *sixth* conclusion at which he arrives in a recent paper on the subject,* viz: "the plea, '*I could not help it,*' is one which every member of the criminal class can urge with as much force, as the subject of morbid impulse; and when it stands alone in an otherwise sane individual, should be absolutely disregarded by juries and judges."

Can it be necessary to argue the negative of this proposition? To our mind, the position carries its own refutation with it. The bare statement of a proposition so monstrous and absurd, not to say cruel and inhumane, can scarcely need argument to upset it. Can it be that a man *impelled* to certain actions by irresistible influences is to be held responsible to the full extent of the law for the consequences? The proposition at once raises the question of man's free agency and consequent moral accountability. The dominant teachings of to-day upon this subject by the most eminent of mental and moral philosophers must first be successfully controverted before the recommendation of Dr. Hammond should have any weight with juries, judges, or the people.

And we confess to some surprise that no one before us, so far as we have seen, since Dr. Hammond first announced his propo-

* *Psychological and Medico-Legal Journal*, August, 1874.

sitions, has had the independence to offer any opposition to his doctrines thus attempted to be instilled into the public mind, and which will always find ready advocates in the friends of those who may unfortunately fall victims to morbid impulse. The tendency of human nature to seek revenge is already too great without having it justified or bolstered by the advice of scientific men, whose views, whether right or wrong, will ever have weight in moulding popular opinion.

Laying aside the refinements of scientific definition, which are intended to serve other purposes, we maintain, with Dr. Maudsley and others, that morbid impulse is virtually a form of insanity, and as such it should be regarded by physicians and courts. It is not true of *sane* criminals at the bar of justice that they can claim exemption from the sentence of law upon the ground that they felt an *irresistible* impulse to commit the crime. In the recognition of their offence, they yet feel that they *could* have acted otherwise, and just in this consists the crime itself. Who of us that is sane that has not done a wrong? And yet do we not recognize that we *could* have acted otherwise? If not, then the degree of our inability to resist should be the degree of our palliation.

If Dr. Hammond means by "morbid impulse" nothing more than violent, temporary *passion*, as the term is ordinarily used, by which a man is led to commit a crime, we concur with him in the sentiment that the criminal should be punished to the extent of the law. But if, as shown by an analysis of the illustrative cases he gives in the paper to which we have reference, he applies the term to that class of cases which are regarded by the authorities from whom he quotes them as illustrations of *insanity*, and which even Dr. Hammond himself classifies* as cases of veritable insanity under the head of *emotional insanity*, then we differ with him *toto cælo*.

Two men, for instance, are tempted to steal upon the occurrence of an opportunity. Both recognize the wrong, and know the consequences. The one, however, feels that he can resist, but he deliberately *will not* allow the better influences to prevail: that man is a *sane* criminal, and should be accordingly dealt

* *Treatise on Diseases of the Nervous System*. By Wm. A. Hammond, M.D., New York: 1873; pages 352 and 353.

with. The other man, it may be, struggles to resist, but the morbid impulse is too great. He would even be glad for some one to come into the room where he is, to restrain the commission of the act "which is contrary to his natural reason, and against his normal inclinations;" but no one comes—he *can't* resist—the theft is committed:—that man is virtually an *insane* criminal; and the law should deal with him, *in point of punishment as such*, more leniently than with the former.

Just here we may be met with the statement as to the difficulty in deciding in such cases the *degree* of responsibility of different prisoners. Let it be so—that does not remove our moral obligations when our convictions are strong and well founded. In well-defined cases at either extreme, there can be no difficulty in judging as to the responsibility or non-responsibility. But unfortunately there are cases on the border ground between the two conditions which it is difficult to classify; and here rests the delicate question, in the decision of which there cannot but be more or less uncertainty. We do not propose to discuss here what course should be pursued in such cases of doubt further than to express our conviction in the correctness of the opinion that leads courts, in this section, always to lean to the side of the prisoner and mercy.

We have not attempted in these remarks to discuss questions that naturally arise as side issues in the consideration of the subject—want of space forbids. We have desired merely to call attention to the subject, feeling assured that sufficient facts and arguments will suggest themselves to the minds of our readers to save them from falling into the errors, and their consequences to society, into which Dr. Hammond's doctrines would naturally lead unless forewarned as to their danger. That there is danger of the infusion of such doctrines in the minds of the coming generation, may be inferred from the fact that Dr. Hammond is the author of several widely-circulated papers on the subject, and is, besides, the Professor in one of our most excellent and worthy medical colleges, from which position his opinions on this subject will be diffused into the young mind. Indeed, some are already accepting them, and advocating their general adoption.

There are several other *non-sequiturs*, as we believe, in Dr.

Hammond's paper; but believing that a proper appreciation of the effect of this last deduction of his will enable readers to recognize on sight the other illogical sequences, we dismiss the subject, which we have taken up in no controversial spirit.

FLORIDA AS A WINTER HEALTH REPORT.

The perusal of a small pamphlet, written by J. P. Wall, M.D., of Tampa, Fla., impresses us more forcibly than ever with the conviction that there are sections of that State peculiarly favorable to persons suffering with pulmonary tuberculosis, who live in other latitudes and other climatic influences; as, also, for invalids generally predisposed to pulmonary diseases.

The eastern portion of the peninsula has long been a resort for such patients. The pamphlet before us invites our attention more particularly to Tampa and the country adjacent as possessing advantages over any other section of the State as a winter health resort for consumptives. It is alleged by the writer, Dr. Wall, who is candid, cautious and careful in his statements, that "there are no bodies of sluggish, fresh waters as are found along the St. John's, continually exhaling moisture, to be precipitated as fogs and mists by the air cooling through rapid terrestrial radiation. Nor are we troubled," he adds, "with storms of continuous Northern blasts, common on the Atlantic." *Permanent residence*, rather than temporary resort, in Dr. Wall's judgment, is necessary to perpetuate the advantages derived from the climate of Florida. The inaccessibility of *Tampa* and the Gulf coast, as compared with the Atlantic and St. John's side, more than anything else, operates against this locality as a winter resort.

It would occupy more space than we can now give to the subject, to pass in review all the aspects of the question presented by Dr. Wall. Any one interested can procure his pamphlet by addressing the author at Tampa, Fla.

DEATH OF THOMAS PLEASANTS ATKINSON, M.D.

It is with more than ordinary sadness and sorrow that we record the death of Thomas P. Atkinson, M.D., formerly of Danville, but more recently of Amelia county, Va. He died at the Buffalo Springs, Mecklenburg county, Va., whither he had gone for the improvement of his health, on Sunday morning, August 30th, 1874. He was born in Chesterfield county, Va., the son of Roger Atkinson, and died in a good old age, being *seventy-nine* years old at the time of his death. But he

was so bright, so cheerful, so full of life and vigor for a man of his years, as we saw him but a few years ago, that it is hard to realize we shall see him no more. He kept abreast with the times, and in full sympathy with the passing events of the day, and grew old so gracefully that we never looked upon him as living on the edge of fourscore years. So genial, so courteous, so versatile, so winning in his manners was he, that he grappled his friends to him as with "hooks of steel;" and even those who were far younger than he, who came to know him well, lost sight of the disparity in years, and greeted him as a companion and a friend. Personally, we deplore his loss, and pay the tribute of a tear to his virtues and to his memory. We lose a friend and a patron whom we valued beyond the power of poor, feeble words to express! He was a gentleman of pleasant address; refined in his taste, accurate in scholarship, learned in the profession of medicine, and to the last wielded a facile and graceful pen in literary composition. He stood high as a practitioner of medicine in his day of active practice. His talents and personal popularity diverted him to political life. He was a member of the State Legislature when the men of mark and statesmanship were called into requisition for legislative service in the better days of the good old Commonwealth of Virginia. At one time he was editor of a political journal, and even in the last four years he was spoken of for the highest in the State.

But we speak of him more particularly as a physician. He was at one time President of the former State Medical Society; and in the more recent organization, had the compliment conferred on him of an election to honorary membership. He contributed valuable papers to the Transactions of the *Medical Society of Virginia* of 1872 and 1873, and was engaged to prepare a historical sketch of the medical men of Virginia and North Carolina for the *Medical Monthly*, to appear at an early day. There was no living member of the profession in either of the States so well qualified for this work as Dr. Thomas Pleasants Atkinson. We fear he died without completing this sketch, and no one can supply this *desideratum*. His acquaintance with the leading Doctors of these sister States was extensive; his memory was a great treasure-house of personal recollections, and he had the material carefully stored away, which, with his facility of writing, would doubtless have formed a most charming contribution to medical biography and literature.

Our space is too limited to say more; but we cannot dismiss the subject without expressing our deep sense of indebtedness to the venerated Dr. Atkinson for the encouragement and support received from him in our attempt to establish the *Virginia Medical Monthly*. In this new and untried enterprise he evinced

the highest interest. His words of counsel and of good cheer strengthened us for the effort, and his congratulations, as we advanced, and saw the experiment a success, were a compensation for the struggle it has cost us to hazard the undertaking. Long will we cherish the recollection of his friendship. But enough—we shall see him no more. The name of Dr. *Thomas P. Atkinson* passes to the mortuary roll of our honored dead.

The American Pharmaceutical Association convened in Louisville, Ky., September 8th. We had hoped to furnish our readers with a synopsis of the proceedings, but our special correspondent's letter has not come to hand, nor have full files of the Louisville papers been received.

Mr. C. Lewis Diehl, Louisville, was elected President for the ensuing year—Boston, Mass., was selected as the place for next meeting, on the first Tuesday in September, 1875.

Among important resolutions adopted was one empowering the officers of the Association to correspond with any international body looking to a unification of the plan upon which the several national pharmacopœias have been constructed.

The Report of the Committee on Adulteration and Sophistication of Drugs is an interesting one. Among the articles mentioned as most frequently found impure, &c., are balsam of fir, balsam of Peru, dandelion, ginger, linseed oil, olive oil, rhubarb, most of the acids *except* sulphuric, citrate of magnesium, cream of tartar, butter, flour, port wine, &c. Red lead was found in some South American extract of meat, the can having been painted red to make it showy and salable.

Medical and Surgical Memoirs is the title of a work, to be in three volumes, soon to appear from the pen of Prof. Joseph Jones, M.D., of New Orleans, than whom there is none in the country better qualified for the accomplishment of the task undertaken. The work will contain the results of investigations on the nature and treatment of various diseases during a period of twenty years. Our object just now is merely to call attention to the work, and to urge our friends to encourage the author by their subscriptions. Price \$5 per volume to subscribers. Volume I will be ready early in 1875. Address Joseph Jones, M.D., Box 1500, New Orleans, La.

Valentine's Meat Juice.—The *Circular Book* elsewhere advertised by Mr. Blunt, will, we hope, draw out the experience of physicians with the Meat Juice. We ask friends to send in their results, so that when sufficient statements are elicited they may be compiled for publication.

Virginia Mortuary Statistics for August, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Health Officers.....		Dr. J. G. Cabell.				Dr. W. M. Wilson.				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		37	35	36	34	17	6	19	20	7	5	12	11
Number still born.....		3		12				2				7	
Ages. Ages unknown not calculated.	Under 1 year.....	24		17		Color not given, 17				Color not given, ...			
	" 3 years.....	16		11		" " " 13				" " " "			
	" 10 ".....	3		5		" " " 7				" " " "			
	" 20 ".....	4		4		" " " 2				" " " "			
	" 30 ".....	8		7		" " " 5				" " " "			
	" 50 ".....	4		9		" " " 6				" " " "			
	" 70 ".....	8		8		" " " 7				" " " "			
	" 80 ".....	4		5		" " " 3				" " " "			
	" 100 ".....	1		4		" " " 1				" " " "			
	Over 100 ".....	...		...		" " " "				" " " "
Most frequent Causes of Death.	Albuminuria.....	.....		.....		.....		1					
	Alcoholism.....	.....		.....		2		.....				
	Apoplexy.....	1		2		.....		1					
	Asthma.....	.....		.....		.....		1					
	Births, Premature & Cyanosis	1		.....		2		.....				
	Bronchitis.....	.....		.....		.....		1		1			
	Cerebral Congest., Effus., Soft,	2		1		1		1					
	Cholera Infantum.....	9		3		3		4		2		1	
	Consumption.....	3		9		2		5		3		2	
	Convulsions.....	1		2		1		3					
	Dentition.....	1		2		.....		.....		
	Diarrh., Dysent., and Enterit.	6		4		1		5		.....		2	
	Diphtheria.....	5		.....		3		.....		1			
	Fever, Malarial.....	.....		1		.....		3					
	" Typho-malarial.....	.....		1		.....		.....		
	" Typhoid.....	6		4		1		.....		2			
	Heart Diseases.....	.....		.....		.....		.....		2			
	Hydrocephalus.....	1		.....		1		.....		2			
	Inanition, Old Age, &c.....	13		13		1		3		.....		2	
	Jaundice.....	.....		.....		.....		.....		1			
	Meningitis, Cerebro-Spi., &c.	1		3		.....		.....		1			
	Parturition.....	.....		.....		.....		1					
	Peritonitis.....	.....		.....		1		.....				
	Pneumonia.....	.....		.....		1		1					
	Pyæmia.....	.....		1		.....		.....		
Small Pox.....	.....		.....		.....		1						
Syphilis.....	.....		1		.....		.....			
Trismus Nascentium.....	.....		1		.....		.....			
Tumor, Ovarian, &c.....	1		.....		.....		.....		.....		1		
Whooping Cough.....	.....		.....		2		4						
		Census taken in February, 1874.				Population is esti- mated.				Population is esti- mated.			

Dr. Hays

VIRGINIA MEDICAL MONTHLY.

VOL I. RICHMOND, NOVEMBER, 1874. No. 8.

Original Communications.

ART. I.—*Electricity as a Restorative Agent in Narcosis and Asphyxia.** By J. J. CALDWELL, M.D., Baltimore, Md.

I propose in this paper to consider briefly the results of the electric current in the resuscitation of cases suffering from the poisonous effects of opium and other narcotics, as well as of suspended animation from drowning, &c.

I would call the attention of practitioners to the necessity of greater care and caution in the restoration of suspended vital functions. And, in this connection, I beg leave to refer to some of the wonderful results of the application of electricity (faradism) in the accomplishment of such restoration; to the theory of the application of the current in these cases; and to the necessity of proper batteries and instruments being placed in all life-saving stations, police headquarters, hospitals, and other institutions; while I shall also briefly refer to the kind of battery most to be recommended in such cases.

CASE I.—In the latter part of the summer of 1873, I was called, late in the night, to see a little child, Jennie C., suffering from a poisonous dose of laudanum. The messenger bore a note from her professional attendant, Professor Murray, of this city, stating that as he had exhausted all other means without benefit, he had concluded to try faradism, at the same time inviting me to join him with my battery. We found the patient

*The Committee (Drs. Bulkley, Edgar and Frothingham) to whom this paper was referred at the late session of the American Medical Association, just prior to the adjournment of the Section, for such action as they might deem proper, returned the paper to the author with permission to publish.

to be deeply narcotized from an accidental dose of laudanum, taken some twelve hours previously.

The current was passed by placing the positive pole over the pneumogastric nerve at the angle of the sterno-cleido-mastoid muscle, whilst the negative pole was placed upon the epigastrium. A powerful primary current was applied and continued for more than three hours, with the happy result of complete restoration, encouraging and urging the respirations from eight or nine up to eighteen or twenty per minute, at which point the pupils became dilated, the pulse normal, and the sensorium capable of acknowledging the previous remedies. Hence vomiting and purging followed, and the patient's life saved thereby. Here we present a typical case of profound narcosis, as well as the antidote.

We were induced in this, as in many similar cases, to try the efficacy of the current from the interesting experiments made upon living rabbits, detailed by Dr. Wilson Phillip in his dissertations in the *Philosophical Transactions* at the London Academy of Science. In one instance, after incision in the neck, severing the pneumogastric, the parsley that had been eaten remained in the stomach undigested; and, after evincing much difficulty in breathing, the animal seemed to die of suffocation. In other rabbits, similarly treated, when the galvanic power was transmitted along the nerve, no difficulty of breathing occurred, though the voltaic action was kept up for twenty-six hours. The rabbits were then killed, and the parsley found in a perfectly digested state. Hence it appears that the galvanic energy is capable of supplying the nervous influence, so that, while under it, the stomach, otherwise inactive, digests food as usual.

The same experiment was tried upon dogs, with like results—the battery current, however, never being so strong as to occasion painful shocks.

CASE II.—On May 11th, 1874, I was summoned to the “Maryland Inebriate Asylum” to attend the case of an attempted suicide in the person of one of the inmates, who had taken a poisonous dose of opium. The usual remedies having been ineffectually resorted to by the accomplished physician of the institution, Dr. Parrish, he requested my attendance, with a

battery ready for use. We found the patient in an unconscious state. A faradic battery was applied about 3 A. M., and continued constantly in use until 7 A. M., during which time the respirations were increased from seven per minute to eighteen, with the same results as we had in the foregoing case.

CASE III.—Mr. S., aged 50, suffering from *delirium tremens*, with insomnia. Here, owing to complete alcoholism, every nerve centre of importance was terribly irritated, and, as a consequence, general agitation, with insomnia, prevailed.

Faradism was applied, as in the former cases, but with this difference, that the poles were simply reversed, with the view of obtaining the sedative instead of the tonic effect of the current. After a few hours' application I was enabled to subdue the irritation, so that this, with the use of large and frequent doses of digitalis, produced quietude, sleep, and healthier action of the emunctories.

CASE IV.—George, a colored boy, aged 30, was so frightened by his pursuers, that he threw himself off the dock into deep water. He was fished up after half an hour, apparently drowned, much to the alarm of the by-standers, who applied the usual means in such cases. A short time afterwards I was sent for, with the view of applying the current; but when I reached him, such was his condition that I had but slight hopes to encourage me, though, upon examination, I found some heat about the spinal cord and brain, and through these organs I applied a powerful secondary current for several hours. At length I discovered faint heart actions, with occasional sighs, which gradually augmented, until at last the organs resumed their functions, and the patient was restored.

I have no hesitancy in stating as my belief, that were these batteries generally recommended to be placed at life-saving stations, &c., many of the apparently drowned could be saved—even after all semblance of animation has ceased, or even as long as there remains one spark of vitality and heat in the great centres.

I would recommend the remarkably powerful battery now pretty generally used in the Navy, known as that of the Galvano-Faradic Manufacturing Company, Double-cell, Double-helix, Hard Rubber Battery. By it we can obtain the most

gentle current, as well as one powerful enough to rend the muscles of an ox, possessing the widest range of application, and the most controllable current yet known in that division of electricity termed faradism.

CASE V.—The following is extracted from the *Virginia Medical Monthly*, May, 1874, entitled "Resuscitation after thirteen and half minutes of apparent death:" "At a meeting of the College of Physicians and Surgeons, N. Y., March 11th, Dr. Lewis A. Sayre exhibited a string of beads, one of which had been taken from the trachea of a child seven years of age. *** She was relieved by tracheotomy. *** She coughed out the bead, gave one inspiration, and died. *** Alcohol was injected into the rectum, and the galvanic current passed through the phrenic nerve. *** She immediately rallied, and then had no further trouble."

CASE VI.—The following is a remarkable case of narcosis, which came under the charge of Ed. C. Harwood, M.D., of New York, and which I found in the *Medical and Surgical Reporter*: An infant, aged 19 days, was thoroughly narcotized by the careless administration of morphia by the nurse. A faradic battery was brought into requisition. One pole was applied over the phrenic nerve and the other over the sternocleido-mastoid muscle. The current was kept up for several hours, with good results.

CASE VII.—The following is from the Hospital Reports, Philadelphia, of a surgical *clinique* of Prof. W. H. Pancoast (*Med. and Surg. Reporter*, May 9th, 1874): The patient, a female, suffered so much, that on one occasion, about a month ago, while out on leave, she bought and used some morphia and chloral in a four ounce mixture, which, on investigation, was found to contain 120 grains of chloral and 8 grains of morphia. She fell into profound narcotism, from which she was aroused with the greatest difficulty. Dr. Miller was compelled to use the battery for fourteen hours, and saved her life.

These are only typical cases, and I think will indicate that, of the many thousands of accidents or suicidal attempts through the agencies dwelt upon, life, in the great majority of cases, might be saved by the timely and scientific application of the current.

This paper would be incomplete if I failed to refer to the electro-motor properties of the animal body, in order that we may have a clearer understanding of the changes produced by the action of the electric current on the various animal tissues.

E. Du Bois-Reymond "was the first to succeed in demonstrating the presence of specific muscle and nerve currents, by the deflection of the magnetic needle;" and it was he, also, who ascertained that "if the nerve or muscle be excited by electric currents or by mechanical or chemical irritants, so that the first is rendered physiologically active, and the latter caused to contract, and then placed at two symmetrical points in connection with the galvano-multiplier, a less deflection of the needle is produced than when the nerve or muscle is in a quiescent state. This is called the negative variation of the current." The conclusion arrived at by Du Bois-Reymond was, that nerve and muscle contain innumerable positive and negative electric molecules, which move with great regularity throughout the tissue.

Then, perchance, the power of electricity, in these cases, may be to restore the suspended electrical forces of the body to a normal condition, and thus re-animate the failing vitality.

The toxic condition produced by chloroform may be remedied much in the same way; that is to say, by appealing to the vaso-motor centres through the pneumogastric axis.

For experiments illustrating the influence of *anæsthetics* on the vaso-motor centres, permit me to extract briefly from a late and able paper by Drs. Bowditch and Minot, read before the Boston Society of Medical Science, and reported in the *Boston Medical and Surgical Journal* of May, 1874:

"Anæsthetics in producing insensibility to pain accomplish such result by antagonizing the effects of irritation of sensitive nerves. One of the most constant physiological results of irritation of a sensitive nerve is a rise of arterial blood tension, due to a reflex stimulation through the vaso-motor centres of the muscular walls of the smaller arteries, especially those of the intestines. It is ascertained that in the majority of cases the rise of blood tension consequent upon the irritation of the *saphenous* nerve, is less marked when the animal is under the influence of ether than when the anæsthetic is not used."

The first object was to determine the effects of anæsthesia on

this reflex rise of blood tension. This was accomplished in the following manner:

An animal, being placed on the operating table in the supine position, a solution of *curare* was injected into the jugular vein, when paralysis ensued. When the respiratory movements ceased, the trachea was connected by means of a glass canula inserted into it with the apparatus for artificial respiration, which was so adjusted as to imitate, as closely as possible, the normal respiratory rhythm. A canula was then placed in the carotid artery and connected with a mercury manometer, carrying a pen, by means of which the blood tension was recorded on a long strip of paper, which was kept in uniform motion by clock work. The saphenous nerve was then placed upon electrodes.

The irritation of the nerve was produced by closing the currents, by means of a key provided with a pen; thus recording the blood tension, which could be seen at a glance. After the anæsthetic had been administered, the nerve was again irritated. Then the blood tension was notably decreased, and so continued to be as long as these experiments were tried.

But far more constant and obvious were the results obtained from chloroform. Here the irritation of the saphenous nerve caused a less marked rise in the blood—tension, and sometimes there was no rise whatever.

These facts present to my mind the clearest evidence in favor of the electrical remedy in cases of deep chloroform toxæmia, and the propriety of having accessibility to a faradic instrument, complete and ready for immediate use, in chloroform administrations. It is also more than probable that electricity would be serviceable in many cases of still-birth.

P. S.—Since the above was written, I have read the interesting report in *The Baltimorean*—an excellent weekly paper published in this city—taken from the Yonker's (N. Y.) *Gazette*, of a case of resuscitation from drowning by the galvanic battery, which occurred at Ocean Grove, Monmouth Co., N. J.:

A youth, aged 17 years, while bathing, suddenly disappeared, and was beyond the aid of spectators or other bathers. "After awhile the tide drifted him ashore far below the place he was last seen, and he was taken up for dead, and a barrel made ready for the old process of resuscitation." In a short time a female

physician, Dr. Hastings, of Philadelphia, arrived with her battery and applied the electric poles "to his stomach and back, thus contracting the muscles of the stomach, causing the water to pour from his mouth; then inflated his lungs, and injected stimulants and medicine into his bowels. When she first examined the body, there was no heart-beat, no pulse, no circulation whatever. In less than an hour, she had caused an artificial circulation through the heart, and he breathed, and shortly after that was screaming for help with the agony of a drowning man.

*** After six days he has been restored to his right mind, and is now able to walk about the house; but his memory of the event is gone, as much so as if his life had been entirely cut off. It is probable that after awhile, as strength returns and old associations surround him, the memory of the fearful event will return."

Dr. Scheling reports in March No. *New York Medical Journal* that, after several hours' continued use of Dr. A. Murrey's double-celled electrical apparatus, he succeeded in saving the life of a patient who had taken *seven and a half* grains of morphine.

ART. II.—*Uterine Tents in Uterine Hæmorrhages.* By JOHN P. WALL, M.D., Tampa, Florida.

Having noticed an article in the April No. of your journal on the use of the sponge-tent in menorrhagia, by Dr. J. H. Claiborne, of Petersburg, Va., I am induced to offer the following in confirmation of the Doctor's experience:

The uses of tents in uterine surgery have, with the advance of gynecology, become so indispensable that it is hardly worth while to discuss the circumstances under which their use may be demanded. Suffice it to say that, for purposes of diagnosis, the removal of morbid growths, and the topical treatment of various chronic diseases of the womb and its canal, their use is often a *sine qua non*.

In 1872 I was first apprised of the real curative value of the tent in persistent hemorrhagic discharges from the uterus by the following case: The patient, a lady, aged 25, the mother of two

children, had an abortion during the third month of gestation. The lochial discharge having continued for over a month, and being occasionally extremely profuse, especially if she got out of bed and attempted to supervise her domestic affairs, I was requested to see her. At first she strenuously objected to any examination—even that by the touch *per vaginam*. Being unacquainted with the real status of the case, nothing else could be done but prescribe empirically some one of the many astringents with opium—aromatic sulphuric acid, ergot, etc.—ringing the changes on the various astringent remedies. This course of treatment continued over a month, had but little, if any, effect in controlling the almost continuous and sometimes excessive hemorrhage.

Finally, the patient being influenced by my threats to abandon the case, and the urgent entreaties of her husband and relatives, an examination was permitted. A bimanual examination revealed an enlargement of the uterus, due probably to subinvolution; but supposing then that there might be retention of the secundines, I introduced a solid laminaria tent, supporting it with pledgets of cotton, for the purpose of exploring the uterine cavity. The patient was kept in bed, and at the expiration of 24 hours the tent was removed, when the os and cervix were found sufficiently dilated to allow a pretty easy introduction of the finger up to the internal os. The introduction of the uterine sound gave only negative results. After this, being somewhat doubtful as to what to do next, I concluded to maintain for a few days a “masterly inactivity” and await developments, when, *presto!* I found my patient well—unwittingly, on my part, cured! While my gratification at such an unexpected result was by no means inconsiderable, my ignorance, at the time, of the *modus operandi* of the tent rather induced me to think that it was merely a happy coincidence. But obtaining, not long afterwards, Sims’ work on *Uterine Surgery*, I learned with inexpressible delight that in groping in the dark I had gone in the right direction. Of this author on this point more hereafter.

In June last, a case of metrorrhagia, which had resisted all the usual internal remedies, was brought from the country and placed under my care. The patient was 48 years old, with an obese tendency; her youngest child 16 years of age. She

thought that, a few years before, she had passed the climacteric period, but afterwards was *unwell* at irregular periods; and for the last few months, before coming under my care, had a continuous hemorrhagic discharge, with pain in the back, etc. She was pale and exsanguine, with marked, though not great, general œdema.

On bimanual examination, a tumor, the size of a hickory-nut, was found to exist in the posterior wall of the cervix, which so encroached on the cervical canal as to give the latter a considerable anterior curvature—recognized on introducing the uterine sound. For further investigation, a solid laminaria tent was introduced, and supported *in situ* by pledgets of cotton. The tent spontaneously came away shortly before my visit next morning on the patient's getting out of bed. I found, however, that the os and cervix were well dilated, so that the rounded contour of the tumor vertically, or antero-posteriorly, could be easily recognized by the finger in the cervix. Finding the tumor wholly intra-mural, I thought it best to desist from any active interference until the patient's general health had been somewhat improved by tonic and roborant treatment. The metrorrhagia immediately ceased, however, after the use of the tent; and at the expiration of a month, she returned to her home in greatly improved health. I prescribed for her the chloride of calcium for continuous use, as suggested by Dr. Meadows.

These two cases have satisfied me of the curative value of the laminaria tent in certain cases of menorrhagia or metrorrhagia. Having never used the sponge-tent in similar cases, I am unable to speak of the comparative merits of the two varieties of tent; but am inclined to the opinion that the laminaria is preferable on account of its greater solidity and more even surface when expanded—thus avoiding the tendency of the sponge to incorporate itself, as it were, in the tissues; while it more efficiently represses or destroys by pressure the small morbid growths on which the hemorrhage depends.

The pathological conditions of the cervical mucous membrane, often occasioning profuse menorrhagia or metrorrhagia, are spoken of by Sims as fungoid granulations and small mucous, or Nabothian polypi. Thomas alludes to the same conditions under the head of fungous degeneration of the uterine mucous membrane;

and suggests the repeated use of tents in their treatment; and when this fails, the curette is to be resorted to.

Dr. Sims speaks of the sponge-tent in enthusiastic terms, as follows: "The power of the sponge-tent to modify the uterine surfaces with which it lies in contact is truly wonderful. It dilates the neck of the womb; it softens it by pressure and a sort of serous depletion; it reduces the size, not only of the neck, but the body of a moderately hypertrophied uterus; it destroys not only fungoid granulations, but even large mucous polypi; and in one instance I saw a sponge-tent destroy wholly a fibroid polypus as large as a pigeon's egg." I have little doubt but that the same remarks are applicable to the laminaria tent.

As regards the hazard attending their use, the same eminent authority says: *** "From a very large experience of sponge-tents in uterine diseases, I am now firmly convinced that we ought never to apply them, under any circumstances, in the consulting-room.

"Whenever they are to be used, the patient should make up her mind to remain in-doors, if not in her bed-room, for some days, and this even when used only for a day. In hospital practice I do not remember a single mishap from them, simply because the patients did not go out and expose themselves to the vicissitudes of the weather. Whereas, after applying them in the consulting-room, I formerly had several accidents from them before I could be convinced of their noxious properties. However, with ordinary care, the tent is as safe as any remedy capable of doing good. And since I have adopted the plan of treating private patients as I do hospital ones, by keeping them in-doors during the time of sponge-tenting; I have had no cause to complain of this agent."

Dr. Sims also gives two instances in which the tent was allowed to remain in the cervix much longer than 24 hours—one 72 hours, and the other a week—without deleterious results, save the discharges becoming horribly foetid. He also recommends pledgets of cotton, saturated with glycerine, placed against the os as a disinfectant. But for a thorough appreciation of the whole subject, the reader is referred to the work already quoted.

ART. III.—*A Few Points in the Practical Management of Diseases of the Skin.** By L. DUNCAN BULKLEY, A.M., M.D., New York.

The first element of importance in treating diseases of the skin, as in any disease, is the diagnosis; for unless this be determined with certainty, all our treatment must be empirical and our success limited. Great advances have been made in this line during the last quarter century: the parasitic diseases have been marked out and are capable of demonstration with a precision almost unequalled in medicine. The three vegetable parasites are shown to students in the colleges almost daily, and can be very readily prepared and exhibited to any one, in equal parts of glycerine and liquor potassæ, with a microscope of 200 diameters. Not less certain are the distinguishing marks of scabies and phthiriasis, occasioned respectively by the *acarus scabei* and the *pediculus* or louse; and these classes of affections form quite a proportion of all the cases of skin diseases. The eruptions from syphilis have characteristics which are well nigh pathognomonic, which are detailed in the later text-books; while lupus, rodent ulcer, and other affections which might be confounded with its later stages, possess features easily recognizable on careful study. The clinical differences between diseases of the skin have now been established fully as clearly as in any other branch of the healing art, and errors of diagnosis, which are of every day occurrence, are as unnecessary and unwarranted as are those in chest affections, bowel complaints, fevers, and so on, with the exception that the latter being more frequently met with, are diagnosticated with greater ease. But this latter consideration should have no influence with the conscientious physician, and we assert that blunders in this branch are no more excusable than in any other, and must be set down to ignorance resulting from want of study or to culpable carelessness in properly investigating the disease in question.† There is a very general feeling among the profession that they would rather meet with any form of disease than that affecting

* Read before the Otsego County [N. Y.] Medical Society, July 21, 1874.

† Some of these errors in diagnosis, with examples, we have given in *The American Practitioner*, August, 1874.

the skin, and yet HEBRA used to tell us that this branch of medicine came next to surgery in the precision of diagnosis possible, and the certainty of results obtainable. To further show the importance of this element of diagnosis, I might say that in the London Hospital for Diseases of the Skin, it is stated that treatment has become to a large measure routine, dependent upon the correct diagnosis.

Having, then, established the definite diagnosis of the affection before us, have correct principles of treatment been determined which may be accepted with certainty? We answer, "Yes, the lines are as clearly drawn, and satisfactory results may be as confidently expected—nay, more so—than in the general run of miscellaneous diseases;" and this assertion is based on hospital residency, dispensary and general private practice, before we limited ourselves to this branch. In saying this we do not mean to imply that we can always cure our cases, or prevent the relapse of psoriasis, eczema or acne, any more than we can remove permanently the tendency to rheumatism, bronchitis or dyspepsia, or cure the later stages of tuberculosis, or cancer, or the prostatic enlargement of the aged. But, understanding what can and what cannot be done in cutaneous medicine, I repeat that modern research has placed its therapeutics on as favorable a basis as that of any other branch, and due diligence can make the management of skin diseases as simple and pleasant as any.

It would be out of place to enter here upon any extended discussion of the principles and practice of dermatology, but we may be pardoned for throwing out a few hints as to elements which we meet with in our every day contact with these affections. First, we would say that diseases of the integument have been isolated far too much from those of the rest of the economy—they have been regarded too much as a separate class of maladies, whose management depends on principles which differ materially from those employed for other systemic disorders, which is a very grievous error indeed. We have on the skin catarrh quite analogous to catarrh of the mucous surfaces, and treated much the same—we call it eczema. Then we have certain affections determined by parasites, cured only by their destruction, as the parasitic diseases of the intestines are cured

only by removing the worms. Many of the cutaneous maladies are simply inflammations of the integument, modified by the seat, structure of the parts, &c. Much of the acne of the face, especially the black specks, comedones—often called worms or grubs—are but a *constipation* of the glands of the skin, and we are daily overcoming constipation of the intestinal glands. Syphilis in its later stages but causes the new development of certain neoplastic elements in various portions of the body, and the neoplasms of tuberculosis are constantly presenting themselves for treatment; surely the measures for the removal of the former are more certain and well defined than those for the latter. But yet again, it is too often forgotten that the skin as a secreting organ, and a very vascular one, is in very intimate connection with the rest of the system, and its diseases bear much of a reflex element. In Wilson Fox's able book on "Diseases of the Stomach," there are repeated allusions to disorder of the stomach being manifested by alterations in the skin, as "febrile heat and suppression of perspiration, in other cases by general coldness and chilliness, especially of the extremities, with perspiration on very slight exertion; or by alterations in its color or texture, which may be earthy or sallow in tint, or dry and coarse; or by various eruptions, among the most frequent of which are erythema, eczema, herpes, acne, impetigo, lichen, and urticaria." In an article on "Herpes Gestationis,"* I demonstrated before the New York Academy of Medicine last winter the very intimate relations which exist between the skin and the organs of reproduction, and the dependence of disease of the one upon disorder or morbid alteration of the other; and Bence Jones, in his admirable book entitled "Lectures on Pathology and Therapeutics," constantly mentions the connection he was able to establish between cutaneous disorders and those of the kidney. To this latter point I have paid very considerable attention during the past year or so, and can abundantly confirm the almost invariable association of certain forms of skin trouble with derangements of the urinary secretion, and consequently the amelioration of cutaneous trouble by diuretic and alkaline treatment. And finally recent research has placed

* *American Journal of Obstetrics and Diseases of Women and Children*, February, 1874.

beyond doubt the direct dependence of certain cutaneous maladies upon new lesions. Thus we see that to treat this class of diseases well, regard must be had to the economy at large, the attention directed *away from the skin rather than to it*, as the tendency will be on the part of physician and patient. Further illustration of this may be seen in the number of eruptions associated with gouty symptoms and tuberculosis, and the many which are benefited by cod liver oil, tonics, change of diet, scene, mode of life, &c.

To speak a little more definitely, and perhaps satisfactorily, I may illustrate by adducing first that most common, and yet oft-times most troublesome, of all diseases of the skin, eczema, the treatment of which has been called the key-note of all cutaneous therapeutics. Infantile eczema is constantly the result of digestive disorder, and secondarily of mal-nutrition. Put on the best local applications, and you but check or moderate the eruption for a season; it will surely burst forth in renewed fury on the slightest provocation. But change the diet and mode of life; restrain improper food; add rich nourishment, as cream and juice of meat, regulating at the same time the hours of feeding, and your other measures, external and internal, are followed by success. Among the most valuable means of nutriment, we place cod-liver oil, which, singly and alone, will effect far more for one-half the cases of eczema, in children and adults, than any other remedy; and it is not necessary that the patient be what is termed scrofulous, or even weak or exhausted, for it to exert its beneficial influence; I have seen the very best results following its use among the richest classes of society; in those who, surrounded by every comfort and luxury, were considered in perfect health, with the exception of what they called the local disease, eczema.

I have observed, also, a very large number of eczematous patients, whose urine presented the constant deposit of uric acid, oxalate of lime, or the amorphous urates. Now we know that these are the manifestations of an incomplete oxidation, whose normal termination should be urea and carbonic acid; and attention to this element of the case, giving such remedies and such diet, exercise, and so on as promote oxidation, has yielded good results, when a prolonged former treatment, based on empiricism, has proved unsatisfactory.

In an analysis of about 200 cases of acne occurring in the practice of the late Dr. H. D. Bulkley and myself, which I recently made,* I found nearly three-fourths of the entire number recorded as connected with digestion and sexual disorders, and of these more than one-half had constipation, and about one-third of the females had affections peculiar to their sex, indicated by menorrhagia, metrorrhagia, dysmenorrhœa, &c. All these elements come up for treatment before we can really radically benefit our acne patients. Quite a share of those with this disorder were troubled with an acid dyspepsia, a mal-assimilation of the saccharine and farinaceous elements, and were benefited by restricting the use of these somewhat, and by the administration of potassa, liquor potassæ, or nitric acid.

Psoriasis, which has been regarded by some as depending entirely on a morbid cell action, and which in Vienna is treated exclusively by local means, is undoubtedly benefited much by a treatment directed to the system at large, and I rarely fail to find improvement follow a proper attention to the emunctories; while bathing, which increases the action of the skin, yields its good results not solely by virtue of its local effect on the diseased surface, but also by improving the cutaneous circulation.

Lupus is at times strikingly benefited by the internal administration of cod-liver oil; and cases have been recently reported where long-standing disease has yielded to very large doses of iodide of potassium. But even in this affection, marked relief often follows measures directed to relieving the congestion of the surface.

I will not speak of the treatment of the syphilodermata other than to state that the tendency of modern practice is to administer both mercury and iodide of potassium in most cases, except where the system is greatly broken down by the long-continued cachexia, when the iodide alone is applicable, with tonics. It is almost never necessary to salivate. I have never done it intentionally, and can count on my fingers the few instances where it has occurred by accident in many thousand skin cases seen here and in Europe.

Time will not permit of further illustration. I trust I have made clear the point that skin diseases are not to be looked upon

* *The American Practitioner*, December. 1874.

solely from a specialist's stand point; but to treat them scientifically and successfully, we must recognize and treat the cause, and to do this we must be careful medical investigators.

But while directing attention thus particularly to the constitutional treatment of this class of cases, we would by no means ignore or undervalue the very great importance of proper local measures, for it is in this that much of our success will depend; and it is very generally necessary to give some application to the surface, in order to give temporary relief and insure confidence, and also to prevent the use of injurious ones, which will certainly be applied by patient or friends unless hindered. We cannot, of course, here go over the list of those recommended in books, or even indicate the ones most proper for each disease, but will only mention a few which we recall as having been particularly serviceable.

During the last year we have made very great use of the "*liquor picis alkalinus*"—a watery alkaline solution of tar—which we first presented to the profession at the New York Dermatological Society in January, 1873.* The formula, which has been often published, is as follows:

R Picis liquidæ.....3ij.
 Potass. causticæ 3j.
 Aquæ 3v.
 M. Ft. "*liquor picis alkalinus*"—use diluted.

The diseases and conditions of the skin in which this is of service in some form of dilution, are very varied. Thus, with 20 to 30 parts of water, it may be used in acute eczema for the purpose of bathing the surface, or cloths may be kept wet with the same continuously on the parts. Diluted with 15 to 20 parts of water, it is of service in acne and to relieve the congestion of the face after exposure to the weather; a little stronger, say 1 to 10 or 15 parts, it relieves pruritus very effectually, in many instances forming a pleasant wash for urticaria, or chronic eczema. From this strength upward it must be increased with caution; 1 to 10 will be found of value in erythematous lupus, and in sub-acute eczema, when the surface must be covered afterward by some bland ointment. In more chronic cases of

* Archives of Scientific and Practical Medicine (Brown-Sequard), No. 2, 1873.

eczema, one part in eight, six, four, or even two parts of water may be rubbed in with some force, a soothing ointment following. We have also employed it in the full strength, but with caution.

In the form of an ointment—a drachm or two to the ounce—it serves an excellent purpose in relieving the itching and scaling of chronic eczema, especially of the legs, and will be sufficient in many cases of tinea tonsurans or ringworm of the scalp to remove it entirely. This ointment may be strengthened by the addition of a drachm or two of some mercurial or sulphur ointment to the ounce. This alkaline tar may be likewise used in making up other washes to relieve congestion; thus, a very favorite one in acne, erythema, and certain cases of congestive eczema, without exudation, is as follows:

R Calamin. preparat.....	3ij.
Zinci oxid.....	3j.
Glycerin-purif.....	3ij.
Liquor picis alkalin.....	3j ad 3ij.
Aquæ rosæ.....	ad 3iv.

M Ft. lotio.

Probably the most commonly known and used ointment is that of the oxide of zinc, and it is really very serviceable in the practice of dermatology. But it is by no means a panacea for all the ills the skin is heir to, as would appear from the hasty and irrational practice of some. We make very frequent use of one of tannin, 3j ad 3j; also of those containing white precipitate, calomel, litharge, &c.

For the relief of itching, a combination of chloral and camphor, in the form of an ointment, or in solution in oil, glycerine or collodion, will be found to be very serviceable. The skin must not be broken, or it causes some pain. A drachm each of chloral-hydrate and powdered gum camphor are rubbed in a mortar till a fluid like glycerine results, when this is to be mixed thoroughly with an ounce of rose ointment. The strength may be increased, but equal portions of chloral and camphor must be used to effect the combination.

More harm is done, we believe, in skin practice by too stimulating measures than is commonly recognized. In a large share dermatic lesions there is congestion of the capillaries, the

nerves of the part are in a state of excitability, the cells are ready to take on proliferation, and the eruption, which, under proper soothing treatment, might tend to recovery in a very short time, may, by injudicious stimulation, develop an amount of infiltration which will take long to remove. Hence, soothe in acute affections, not forgetting, however, that chronic conditions may often call for treatment quite as reversely stimulating.

But I am trespassing upon your indulgence and beyond the bounds I had set for myself. I trust I have succeeded in securing your interest more fully than before in this most interesting branch of medicine—cutaneous therapeutics—and in showing at the same time that dermatology need not be looked upon as a close specialty; but that for the successful treatment of skin diseases, general medical knowledge is not only valuable, but necessary, and that general knowledge and skill must be applied in each case. Finally, that the progress of medicine has placed the diagnosis and treatment of skin diseases on quite as good, if not better, footing, than many of the departments of general medicine.

ART. IV.—*Oxygen Gas in Heat-Stroke.* By CHARLES G. HILL, M.D., Arlington, Md.

Having read with great interest the article in the first number of the *Medical Monthly*, from the pen of Dr. Cabell, on "Oxygen Gas as a Remedy in Disease," I desire to add another instance of its application, in a disease not referred to in his communication. I allude to its use in heat stroke or *coup de soleil*. Unfortunately, my experience extends only to one case of its administration in this disease, which I will copy from my note-book without comment, after giving a brief resume of the views that lead me to give it a trial.

Dr. Hartshorne, in his excellent little work on the Practice of Medicine, describes the two forms of this disease as follows: "In one, the direct rays of the sun upon the head induce *cerebral congestion*; in the other, excessive heat, often not under the immediate influence of the sun, affects the whole system with prostration, apparently from a *blood change*; the chemical ope-

rations of the economy being modified by heat in a manner incompatible with the vitality of the blood."

My experience is, that in the former, or *sun-stroke*, as he distinguishes it, the tendency is generally towards recovery, especially if the patient be removed to a cool place and ice freely applied to the head and chest; but in the latter, or genuine *heat stroke*, the most persevering efforts and the most approved treatment are too often sadly unavailing. During the summer of 1870, while occupying the position of Resident Physician of the Washington University Hospital, of Baltimore, I had the opportunity of almost daily witnessing cases of this kind. And it was lamentable to see that, notwithstanding prompt and energetic treatment, the mortality of those who reached a state of coma was immense. And under these circumstances I felt justified in making any experiments that gave promise of an improvement in the treatment usually adopted in these cases.

The time has not arrived when we can explain to our entire satisfaction how that *peculiar modification* of the blood, incident to this disease, is brought about. But we invariably find it associated with the following concomitant circumstances: A system already depressed by some previous cause, such as intemperance, excessive use of cold water, etc.; and an atmosphere *greatly rarefied* by extreme and prolonged heat, and surcharged with all those foul and deleterious gases that emanate from the docks and gutters of a large city (for cases of genuine heat-stroke in the country have been so rarely and imperfectly noted that there are good reasons for doubting them altogether).

Believing that this *impure and attenuated atmosphere* was the immediate cause of the disease, by introducing into the system *materies morbi* from without, and by being incapable of properly oxygenating the blood, thereby allowing the accumulation of the effete matters, resulting from the natural tissue metamorphosis of the body, I determined to test the virtues of the inhalation of oxygen gas in the next case that presented itself. The gas was accordingly prepared and held in readiness until the following case allowed an opportunity of giving it a trial:

Friday, July 25th, 1870.—M. X., æt. 40, wood-sawyer by occupation, while returning from his work about 6 o'clock P. M., was overcome by the heat on the corner of Calvert and Lombard

streets. He was taken immediately to the middle district station-house; and, being summoned, I reached there about twenty minutes after six. Found him in a comatose condition, grinding his teeth, and vomiting a thick, frothy substance, tinged with bile, and of an unpleasant odor. Pulse 104, weak and fluttering; body and head hot; pupils contracted and insensible to light. Ordered ice to the head and mustard to the epigastrium and the feet. Sent at once for the oxygen, which arrived in about ten minutes. Up to this time there had been no perceptible change in any respect. Applied the oxygen loosely to the nostrils, so as to allow a free admixture of atmospheric air. In a short time the pulse began to grow stronger, and soon sank to 90 beats per minute. Patient at this time showed signs of returning sensibility by moving the hands as though the mustard was felt. The pupils became less contracted and more sensitive to light. The pulse had reached as low as 80, when the first supply of oxygen being exhausted, I resorted to a second, which was at hand. In the short delay which the changing from the one to the other occasioned, the pulse grew somewhat weaker, and rose to 88, but soon returned to its former condition on the re-application of the oxygen. The improvement of the patient was now evident to all. The frothy substance ejected from the stomach had given place to a thin watery fluid, and the patient was able to reply when spoken to. The oxygen was then gradually withdrawn, and at about eight o'clock he was able to walk unassisted to a hack in front of the door, and be conveyed to his home.

Having removed into the country shortly after this occurrence, I had no opportunity of extending this treatment, and I publish it now in the hope that some one may see fit to give it further trial, as I feel assured that this potent agent will be found a highly important addition to the treatment of heat-stroke.

ART. V.—*Is Drinking-Water a Factor in the Production of Malarial Fevers?* By HERBERT M. NASH, M.D., Norfolk, Va.

Dr. Parkes, in his work on Hygiene, states, "That some of the specific diseases are disseminated by drinking-water is a fact

which has only received its due share of attention of late years, and that this is certainly one of the most important steps in etiology which has been made in this country."

It has been long known that dyspepsia, diarrhoea, and dysentery have been caused by impure water, and the knowledge of its influence in the production and spread of typhoid fever is not as of modern origin as has been supposed. The evidence of its being the vehicle, in many instances, of the spread of cholera, is too strong to be denied, notwithstanding the opposition of Pettenkofer to the doctrine. We need not stop to mention the numerous other diseases or causes of disease which have been attributed to drinking-water, other than the subject of this paper.

The oldest writers on medicine believed that the water of marshes generated fevers, and such a belief has ever existed in countries subject to the ravages of malarial fevers; and in modern times the authorities are quite numerous on the affirmative side of this question.

Mr. Bettington, of the Madras civil service (quoted by Parkes), says, "That it is notorious that water produces fevers and affections of the spleen." This writer refers to villages placed under the same conditions as to marsh air, but in some of which fevers are prevalent, in others not—the only difference is, that the latter is supplied with pure water, the former with marsh or mullate water, full of vegetable debris. In one village no one used to escape fever until surface water was substituted by that of a deep well for drinking purposes. In this paper the writer gives evidence particularly strong. Other recent and eminent East Indian writers have given similar opinions.

Dr. Townsend (also quoted by Parkes), Sanitary Commissioner for the Central Provinces of India, mentions, in one of his able reports (1870), "that the natives have a current opinion that the use of river water in the rainy season, when impregnated with much vegetable matter, will almost certainly produce ague, and his own observations corroborate this view. In this way the prevalence of ague in dry and elevated spots is, he thinks, often explained." He mentions also that the people who use the water of streams draining forest lands and rice-fields suffer more severely from ague than the inhabitants of the

open plain drawing water from a soil on which wheat grows. In the former case there is more vegetable matter. "The upper Godavery tract is said to be the most aguish in the province, yet there is not an acre of marshy ground; the people use the water of the Godavery, which drains more dense forest land than any river of India."

"Dr. Blanc, in his papers on Abyssinia, mentions, that on the march from Massowah to the highlands, Mr. Prideaux and himself, who drank water only in the form of tea and coffee, entirely escaped fever, while others less careful suffered, and, as Dr. B. believes, from the water."

M. Commaili (Parkes, 1868) states that, in Marseilles, paroxysmal fevers were unknown until the supply of water for the city was taken from the Marseilles canal.

"In the Landes (southwest France), the water from the extensive plain contain much vegetable matter, obtained from the vegetable deposit which binds together the silicious particles of the subsoil. It has a marshy smell, and, according to Fauré, produces intermittents and visceral engorgements."

Parkes, from which eminent author I have quoted much, also states that these facts have been repeatedly noticed in England, and he mentions the case of the *Argo*, recorded by Boudin, as a strong example. "In 1834, 800 soldiers, in good health, embarked in three vessels to pass from Bona, in Algiers, to Marseilles. They all arrived at Marseilles the same day. In two vessels there were 680 men, without a single sick man. In the third vessel, the *Argo*, there had been 120 men; thirteen died on the passage; and of the 107 survivors, no less than 98 were disembarked, with all forms of *paludal* fevers. The crew of the *Argo* had not a single man sick. All the soldiers had been exposed to the same influences of atmosphere before embarkation. The crew and the soldiers of the *Argo* were exposed to the same atmospheric conditions during the voyage; the influence of the air seems, therefore, excluded. No notice was taken of their food as of little consequence. The water, however, was different; in the two healthy ships the water was good. The soldiers of the *Argo* had been supplied with water from a marsh, which had a disagreeable smell; the crew of the *Argo* had pure water. The evidence here seems as complete as could be wished."

The same author also notes, "that one very important circumstance is the rapidity of development of the malarial diseases, and its fatality, when introduced by water, as is also the case with diarrhœa and dysentery. Either the fever-making cause must be in *larger quantities* in water, or what is equally probable, must be more readily taken up into the circulation and carried to the spleen, than when the cause enters through the lungs."

Most modern writers upon malaria dwell almost exclusively upon the atmospheric phases of the subject, and some take the opposite view to those above expressed, and contend that water has little to do with the production of malarial fevers. Among the latter is the worthy President of the Virginia Medical Society, who, in a late able article on the "Study of Malaria," in the *Virginia Medical Monthly*, dismisses the question of the influence of water in this connection, in a very short paragraph, with the statement that "the internal use of these waters (i. e., waters that presented the greatest impurities) does not give origin to paludal fevers, whatever other symptoms of adynamic fever, or of scorbutus, or disorders of the digestive organs they may occasionally cause." My own opinion, not hastily formed, coincides with that of the writers first quoted, and I am sustained in this view by quite a number of medical men of this city, where ample opportunity has been afforded of investigating this question.

After some years of observation of the malarial diseases of the vicinity of Norfolk, I became convinced that the nature of the spring and well water used by farmers for drinking purposes, had much to do with their production. There can be no doubt that the water from such a source (i. e., from soils constituted as those of Norfolk and Princess Anne counties more particularly) contains, besides saline and earthy matter in solution and admixture, a considerable amount of organic matter, mostly of vegetable, but sometimes of animal origin. Acting upon this conviction, that such water, if not directly the cause of these fevers, certainly aggravated and protracted them, a number of families were prevailed upon to construct *cisterns*, and to confine themselves to the use of this water for drinking. The difference in all cases in which this course has been pursued has

been amazing, and the change from annual and protracted visitations of malarial fevers to comparative healthfulness was so rapid as to leave no room for doubt.

Of late years families from the North, and some from non-malarial districts, have settled in the country around Norfolk, and by adopting the cistern instead of using well or spring water, have escaped these fevers, while their less fortunate native neighbors, who were not thus provided, suffered, as formerly, from all the annoyances and dangers incident to them. I have learned of one instance, of a farm hand in the Holland Swamp, in Princess Anne county, the healthfulness of which was speedily and almost entirely insured by the construction of a cistern, and which farm had been almost untenable from its insalubrity. In securing cistern water, the first fall of the rain, which brings down many impurities from the atmosphere, together with the washings of the roof, should be allowed to escape, and the succeeding clear rain water only permitted to enter the cisterns, which should be well covered from light and air.

To call the particular attention of physicians practising in malarious districts to this subject is the only object of this paper.

ART. VI.—*The Residence and Agencies of the Passions*.* By
GEORGE BAYLES, M.D., New York.

LECTURE I—PART I.

Far back, behind all the objective signs and physical manifestations of the soul's sentiments, is a point which may be regarded as the residence of the passions.

What we know of the forces of nature in active operation in those limitless spaces called "the star depths," is as fair a comparison as any of what we know of the operations within the depths of the human soul. What we elicit of the soul's verity of being, order of action, and operative effects, we receive through that system of organs fashioned to serve as media of communication between the soul and the outside world. Their evidence

*Two lectures delivered before the Albany Medical College, September 17th and 18th, 1874, by invitation of the Lecture Committee—Prof. George T. Stevens, M.D., Chairman. Arranged for the *Virginia Medical Monthly*.

is returned to the soul from which the power of cognizance was derived, and hence the soul preserves in the main its secrets regarding its constitution and its powers.

It is well to realize how little we know, or ever can know, before venturing out upon the voyage of discovery concerning special operations of the soul. We have at our command the whole panoramic review of thought and speculation regarding them, held from ancient times to the present; and yet it all amounts to what we have just said, a very limited knowledge, and this voluntarily revealed by the soul through operations of its sensorial agents, from without inward, and entrusted to a department of the soul's forces the most subservient, credulous, and menial, viz: the intellect.

I have been particular to mention that that treasury of our knowledge, the intellect, is stored chiefly from without. It studies others more than itself. What it learns of the soul's activities and functions in other beings may be not at all, or only partly true, of its own master energies. Hence we have the key of all situations that address themselves in favor of the increase of knowledge, viz: observation.

Observation lends all that can be claimed of power and successful attainment to the students of nature, and among these we have the psychologist, physiologist, and pathologist. These specialists in scientific research have great missions, for to them shall be revealed all the soul designs shall be known and understood of ultimate physical forces by the physical instruments given to it for its manifold operations during its earthly career. That this knowledge, however limited, is important, and even necessary for our welfare and temporal happiness, seems unquestionable, for the great Divine Intelligence must have ordained that some fragments of the soul's constitutional identity should be exposed, and be comprehensible to sense, as monitors in the acts of life done according to nature. Some evidence of this may possibly be discerned in that principle of the soul's activity which we commonly term *conscience*. It is through the eyes of the psychologist, physiologist, and pathologist that we, as medical men, must contemplate the subject we have chosen for our consideration.

The study, thus far, has been fruitful in theories and gro-

tesque notions relating to the seat or location of the passions, the scope of their actions, and the sum of their effects. What the ancients thought is interesting to us, chiefly because it is curious and so amusingly superficial—not because it is true. Later thought has been more searching and rational; very modern thought has been profound, and it is safe to say very truth-discerning.

The poetry and medical writings of the ancients show that the prevalent idea of the passions was, that each individual passion was a distinct attribute of the soul, and had a particular region within the body, assigned to it for its residence—commonly one of the important visceral organs. The familiar aphorism, “Splene ridant, felle irascunt, jecore amant, pulmonie jactantur,” expresses the theory of the ancients. The spleen accordingly gives a local habitation to mirth, the gall-bladder to anger, the liver to love, and lungs to vain-glory.

Descartes first conceived the *brain* origin and habitation of the emotions or passions. He expresses himself thus: “The soul can suffer directly only through the brain; and again: “The soul receives impressions from the brain and from no other parts of the body.” It is difficult to realize that a fact now so elementary should ever have been unknown; and more difficult to understand how the great psychologist, Bichat, should have found no place in his doctrine for this truth.

Bichat held firmly to the ancient doctrine, and his *epigastric centre* was the seat of man’s emotional nature—the primary home of the human passions. This epigastric centre embraced the heart, the stomach, lungs, liver, gall-bladder, and ganglionic nerve-centres. Each of these organs he held to be the seat of a distinct passion, and each ganglionic-centre within the organs the residence of a special constituent of the passion; by which is meant characteristic emotion, being a subdivision of a passion, and to be classified under the general head of some leading passion. Bichat regarded the passions as emanating from the organs of organic life, and thought as proceeding from the brain, the one great organ of animal life. He argued, therefore, that everything concerning intellectual operations, properly so called, has its seat in the brain, which is the centre of animal life, and everything which has to do with passional states has its seat in the viscera.

The effect of former thought has been very marked in the influence it has had upon our language, and the permanence of the effect does not seem at all influenced by the dissemination of more correct views. The numerous idiomatic expressions, such as "a tender heart," "a fine head," "the blood boils," "the bosom heaves," "the flesh creeps," &c., &c., are illustrative of the ancient views held regarding the chief impressions and chief fields of operation of the stronger emotions.

It cannot remain a wonder to us when we reflect that physiological science had made so little genuine progress, and that in the credulous days of the past what only seemed to be was as good and true as aught else. There is a naturalness and spontaneity about our gestures that is not the offspring of any education in these false views. We wonder still less at the wealth of such expressions as relegate to the abdominal and thoracic regions the location of such passional emotions as love, joy, hate, and disgust. All attentively observed pantomimic action will abundantly illustrate this point, and its naturalness will be proved by its thorough accord with one's own intentions. Try to express in dumb-show your own real or simulated states of passional excitement; and you will rarely ever act as though the head were involved, but only as though the visceral region were the seat of the incidental excitement. We bring the hand naturally to the region of the heart or the stomach when in our recitations of poetry or romance-writing, we design to intensify the expressions formed by the language.

For a like reason language often adopts terms, similar to those quoted above, because of its naturalness, and not because of its physiological accuracy. But why should nature so stultify herself? Why should emotions and passions seem to spring from situations remote from their real residence, and give no sign of their truancy? We will inquire; though in order to ascertain we shall have to enter the domain of physiology with another and a different question from the one originally entertained with reference to the residence of the passions. Now the question will have to be, What are the physiological conditions that give a distant sphere of action to forces having a fixed residential seat?

We cannot be mistaken in what we have so often observed,

viz: that anger accelerates the circulatory movement, while grief and fear will produce a precisely opposite effect. Emotions are often followed by syncope; and if the emotion is intense, the syncope may be fatal. A sudden terror will suppress the secretion of bile, and grief has a very disturbing effect upon the respiration. When emotions or their parent passions are prolonged and become profound, the effects upon the nutritive processes are very evident and significant. The pinings and wastings of suspended healthful organic processes are only too common and noticeable to need any extended description. When the lungs are highly developed and circulation vigorous, we look for impetuous dispositions, choleric natures, passionate and courageous temperaments. In biliary exaltation, envy and distrust seem to predominate. The lymphatic state encourages a quiet and indolent tendency. We must conclude that the organic system is the normal field of passionnal activity, and that it is for operations in this field that the passions owe their existence.

The focus of animal life being the brain, it has, since Bichat, been proved that the focus of organic life is likewise the brain, as the chief glanglionic-centre, and that both animal and organic life have common parentage in the soul lying far back in the spirit-spaces and intellectual depths. The celebrated Gall first pointed out the fact that the passions primarily affect the brain as a nerve centre, and not the viscera. He showed us that the brain is the organ of sentiments as well as ideas; also that the heart and diaphragm are only muscles, the stomach and liver only organs or apparatus of secretion, and for the modification of alimentary agents, the kidneys excretory apparatus, and the spleen a gland, having sanguineous functions. The removal of these organs or their injury does not banish or abate the passion, excepting so far as their integrity is essential to life. Gall discovered in the brain the exclusive seat of all the propensities, instincts, affections, or passions; he also discovered that any impairment of the brain determines a perturbation of the passionnal no less than of the intellectual phenomena. Less than a century ago such thoughtful students of mental phenomena as Esquirol and Pinel failed to locate the causes of mania and dementia in the brain. Gall's essential services under such circumstances cannot be too highly appreciated.

Cláude Bernard set forth as his doctrine that all sensations act primarily upon the nerve-centres through the nerves reaching from the periphery of the body to those centres. The chief centre, the brain, or possibly that important nerve-centre, the medulla, or that composite nerve-centre, the spinal cord, having determined the excitation, this impression is transferred to the nerve filaments which extend to the viscera and members, and hence the latter are affected only secondarily. The heart is the organ which earliest and most profoundly experiences the influence of the sensitive excitations produced in the nerve-centres. The heart expresses its sensitiveness to any and all the modifications which have taken place in the main nerve-centres, by the alteration of its movements. The modifications may be of a nature to effect chiefly other organs; still the sensitive, vigilant heart will invariably participate in the perturbation. If the nervous action is sufficiently energetic, and the result is of a depressing nature, it may be sufficient to stop the heart contractions, and consequently arrest the flow of blood to and from the brain and other parts. Therefore syncope will follow, and all the signs of suspended animation which resemble death. Should this depression be protracted beyond a certain point death will ensue. When the perturbation of the heart's action is of an exciting nature, and that organ is coerced into undue activity, sending the blood-currents with accelerated force into the chief nerve-centre, the brain, that organ is unduly excited, and its operative sensibility is either greatly exalted or entirely overwhelmed.

At the risk of reiteration, and for the sake of a condensed view of Bernard's teachings on this point, I would say that the heart is no more the seat of the sentiments than the hand is the seat of the will, but it is a reactive which is modified by the sentiments with the utmost nicety, and with infallible certainty. Not only does the heart betray by the disturbance of its normal rhythm, the nature of the initial brain excitation, but it also produces throughout the whole organism disordered actions, the sum of which constitutes as it were the physical image or the palpable externals of passion. But it produces this disordered action only by reacting on the brain, which is the organ of all the demonstrations, and of all the movements of the nerves, and consequently of the muscles. Thus it is that

the heart and the brain, the blood system,' and the nerve system, conspire in the production of passional phenomena by a series of alternate actions and reactions

I suspect our second and interpolated question is herein answered by this general review of Bernard's doctrines held and expounded at the famous *Conference* at Sorbonne in 1864.

The more critical observations of the nerve-connections of the heart with the cerebral nerve-centres made by a Russian physiologist, E. Cyon, have been valuable contributions to the minute anatomy and physiology of this subject. Cyon discovered the self-acting nerve-ganglia belonging to the heart and unconnected with the sensorium. These ganglia control and regulate the usual normal action of the heart. They are the reliable, ever-acting balance-wheels of the heart's action, though that organ may momentarily be receiving excitations, having their origin in the brain. The function of these ganglia is to restore to normal rhythm the frequently disturbed and modified action of the heart influenced by causes originating in the brain. The influence of the blood seems to be sufficient to maintain the motive power and functional activity of important detached ganglia. There are other ganglia of the heart to which are sent the retardator and accelerator nerves (the pneumogastric being the retardator); and these two sets of nerves cause the activity of the heart to conform to that of the rest of the organism, and hold it in equilibrium with the continual oscillation of the various energies of the body and soul. The true antagonists of the accelerator nerve-filaments of the heart are the depressors rather than the retardator or the pneumogastric, as has been demonstrated by Cyon. The office of these nerves is to acquaint the soul, through the sensorium, of the precise state, momentarily, of the cardiac movements. The mechanism of the heart's motions under passional influences depends upon these two inverse nerve-currents.

It is interesting indeed to study the phenomena excited by the soul's emotions, whether joyous or depressing, whether under impressions made through the accelerator nerve-fibres, or the retardator filaments of the pneumogastric nerve as related to the heart. Equally interesting is it whether the impressions of a relative nature are made upon the lungs or stomach, or possibly upon other organs and members to a degree to be positively ap-

parent as well objectively as subjectively. The study by reason of the uniformity and unconcealed character of the phenomena, need not be confined to one's self, but may embrace a whole community. I think that the common interest taken in what we mean by the ordinary expression "studying human nature," is owing to the visibility and verity of these impressions, acting upon other organic apparatus than our own, and exhibiting those modifications and variations of phenomena, under the influence of repression or encouragement that gives us types and varieties of temperament.

We have phrases to illustrate our mental impressions concerning these peculiar phenomena: "The heart leaps for joy," or "flutters with anticipation," and we speak of a "light heart" or "light-heartedness." Under all circumstances concerning the heart's joyousness, the accelerator nerve-fibres are acting, and the retardator fibres are idle. The heart beats with greater activity, but with less force of muscular contraction. The blood flows with facility through the arteries, aided by elements of force commonly unprovoked to action. A feeling of comfort and pleasure ensues. In the opposite condition, that which concerns the heart's woe, the retardator nerve-fibres are in operation, and the accelerator are paralyzed. The heart's action is slow and laborious, blood is sent out upon its course languidly, and in almost unwieldy volume. The sensations experienced under this condition are graphically described by the phrase, "the heart is bursting" or "the heart will break," and expressions of a like character. A load and a stricture in the region of the heart is the usual sensation in cases of suffering from anguish, especially that which for any reason is cloaked and made to be concealed. The anguish may be so intense as finally to impair, if not to paralyze the retardator nerves, and the result will be wild, irregular, and spasmodic contractions with every variety of consequent erratic pulsation through the arteries, and may terminate in a total suspension of the heart's action, producing syncope if temporary, and death if permanent. The absolute necessity for care and caution, even of ingenious precaution in breaking a piece of sad news to a sensitive person is very apparent. The intensity of the effects produced upon the heart by the soul's emotions depends above all on the excitability of the nerves connecting heart

and brain. As women and children have always been regarded as more tender-hearted than men, it is a reasonable inference that their cerebro-cardiac nerve-filaments, both exciting and depressing, are the more responsive and acutely sensitive. What we have said of the heart can be said with more or less specific exactness of the other organs of the organism and of sentient life. The lungs appear to have some connection with thought. Deep reflection or profound attention has a very marked repressive effect upon the respiratory movements. Darwin suggests, in explanation of this phenomenon, that it is the result of a habit we have contracted of not breathing when we are listening attentively, so as not to disturb by the respiratory sounds the silence needful in appreciating every modulation of sound by which our attention is arrested and our interest captivated. Simulated emotion or imitated passion, such as becomes the measure of talent belonging to the actor, the paid mourner, the rhetorician, &c. have not the accompaniment of actual physiological perturbations of circulation, excepting so far as they are secured by the exercise of mere voluntary muscular energy. Pulse force with suffusion of surface from capillary engorgement, is literally all that could even then be evoked imitative of physiological effects from passional exhibitions. It would be easy, by means of a properly constructed cardiograph or pulseometer, to detect the difference between real and simulated emotion. It is not unlikely that time and observation will prove that each of the passions have a pulse-curve peculiar to itself. Should this discovery ever be realized, with what comparative ease might we not detect states of the soul under stress of love, fear, grief, joy, anger, &c.; domestic difficulties might often find an easy solution. The courts of law would have an invaluable aid in weighing the worth of testimony. The criminal, if present, could scarcely conceal his guilt; for if his features deceived his heart's action and the arterial rhythm and tension would inevitably reveal his guiltiness. Insanity, especially of certain types, could not successfully be feigned, because crazy actions in the truly insane would be found to have a physiological accompaniment that crazy actions in the impostor would not have, and which the apparatus devised for its detection would serve to reveal. When you see a person agitated and perhaps weeping on the receipt

of some painful news, you have only to feel the pulse; if that is normal you may conclude the emotion is simulated. On the other hand, if you see a person whose distress is manifested by no outward signs, but whose heart beats excitedly and irregularly, you may be sure a tranquility is feigned that is not felt. Tables of pulse and heart-throb curves in various emotional and passional states would be a novelty indeed, but, nevertheless, a thing to be looked for in future treatises pertaining to the psychological characteristics and phenomena of mankind. As we proceed we shall have evidence of the fact that the agencies of the passions are none the less pathological than physiological in some of their characteristic manifestations and results. We must try, though briefly, to consider some of the most eminent points under each of these heads. Every organ as well as system of parts of the body, whether under the control of the will or not, has at least physiological transactions with the emotional part of man's nature. If they are not employed to dissemble passion, they are ever ready, by involuntary or automatic performances, to betray the same. Attitude and expression depending upon the muscular system, complexion and sudoriferous states depending upon the cutaneous system, genital erethism depending upon the pelvic circulation, local nervous irritation, &c., &c., are only a few of the instances we might adduce to illustrate physiological action. Will a man in a rage stand still, even if there were desirable diplomatic reasons for his doing so? Will a man struck dumb with terror have the use of his legs—is he not rather petrified by fear? If a piece of news of either an agreeable or painful nature is suddenly presented, is it possible for the muscles of the face to withhold all traces of the usual expressions excited by such sudden impressions? The most successful repudiator of all the common results of emotional excitement, and the best imitator of false emotional states is perhaps the skilled, we might all most say the accomplished military *melingerer*. He defies science. The stage-actor has neither real emotional impression, nor real effects to deal with. His is a picture or realistic representation of all that is imagined or evolved by the fancy. The physiognomy is a wonderful index of the state of the soul's bias under excitement and action. The marvelous success of our caricature painters and draftsmen will well illustrate the fact, were

anything needed beyond our own personal observation of people's faces. Every artist, professional or amateur, knows how readily expressions portraying every variety of emotional state can be secured by the merest dash or shade or combination of simple lines. With all this complexity of local nervous response, tissual and humoral reaction, we know that the dissecting knife of the anatomist, the multiform appliances for chemical, electrical and microscopical investigation of the physiologist, have demonstrated a well-defined field of action for each and all the physiological phenomena or normal agencies of the passions. M. Duchenne, of Bologna, has made some delicate and trustworthy demonstrations of this sort upon facial expressions, particularly relating to the parts under the influence of the seventh pair of facial nerves. This investigator has determined by means of various excitants, the contraction of each particular one of the facial muscles; and utilizing his discoveries by comparisons made when expressions were furnished under disease that were uncommon or always oddly excited in health, he was able to show that each passion had a facial muscle at its command, or at least a portion of one, and sometimes more than one. You will be interested in what Duchenne says about the muscle of suffering, as he terms the muscle which indicates pain when in a state of contraction: "From the very outset I had observed that the partial movement of one of the motor muscles of the eyebrow always produced a complete expression in the human face. For instance, there is one muscle that expresses pain—the superciliary muscle—and causing this to contract by electricity, not only did the eyebrow assume the form expressive of pain, but the other parts and features of the countenance, particularly the mouth, and naso-labial line seemed also to undergo a profound modification so as to harmonize with the eyebrow, and, like it, to give expression to a painful state of the soul." It is obvious that the similarity of functions in these facial muscles produces a community of force and sympathy of action, while the true or direct operation of any one emotional impulse is restricted to a very limited sphere. Rays from lights having distinctly different colors will blend harmoniously and diffuse their distinct performances under modified tints. No one color will attempt to predominate, or, at all events, to assert itself independently of the

other colors. The result of this close experimentation has been to assign to each facial muscle a psychological as well as a physiological name according to its operation under passional impulses. These operations you will comprehend when I mention that the frontal muscle comes into active play in a variety of ways, in states of attention, wonder, surprise and alarm. The great zygomatic and the orbicular muscles derive their psychological inspiration from states of joy, while the pyramidal muscles of the nose respond directly to the aggressive propensities. The muscles of the eye are commonly concerned in expressions of the nobler, loftier sort, and those of the mouth in expressions of a grosser, more sensual kind. The purely complaisant and lascivious smile derives aid from the zygomatic muscle. Benevolence and good nature is made beaming with pleasure and contentment by the action of the inferior orbicular. I am inclined to believe that time will reveal the fact that all surface muscles are directly and indirectly concerned in the sign-language of the passions.

Modern civilization has shorn man of his *genuine modesty* (that honest forgetfulness of personal properties), and made the substitute for the original "fig leaf" very cumbersome, and excessively ample. Our artists and physiologists, therefore, are not easily able to observe the play of passional impulse upon muscles that rarely enjoy the freedom of nudity. We know the old masters of painting were instructed beyond anything that we can appreciate in this very obsolete department of physical observation. We have very good evidence that they did not arrive at their effects altogether by intuition. Their inspirations and delineations came by sight. What they constantly or frequently saw, they learned to understand and to record. Hence we have what are to us revelations and miracles of delineative art.

Whether we incline towards or away from Mr. Darwin's views in relation to the origin of habitual or instinctive gestures and muscular movements, we cannot be oblivious to the fact that the emotional nature acts with equal and uniform precision and intensity upon organs that can make no sign to the outer world—at least no sign that would be immediately intelligible, even if observed. The liver, the spleen, the kidneys, and other organs which might be named, have each their role of activities directly

fashioned by the passions, which can only be discerned by the induced effects upon the general constitutional integrity, or the secondary effects produced upon mere superficial parts. It would not be unreasonable to place some faith in the theory that, whether seen or unseen, the perturbations of organ, tissue, or humor invariably mark the activity of the emotional nature. Further, that these perturbations, whether expressed by automatic gesture, alterations of features, or changes in organs or parts hidden from view, are in each and every case the ordained sign-language of the passions.

That some of the muscular movements of the face arose in the manner suggested by Mr. Darwin may be true; nevertheless, tears, laughter, the blush or pallor of the surface, the erection of the capillary shafts, the elevation of the papillæ, the discharge of the products of the secretory and the excretory organs, when the excitement is purely emotional, are phenomena divorced from the will. These, therefore, cannot be the result of any number of ages of habit excepting of habits that foster the susceptibility of the emotions. These phenomena can rarely be produced at will by the dissembler or mimic, and if produced, secret and cunning artificial aid must always be employed.

The inflections of the voice, as related to the passions, are as varied as the expressions of the physiognomy. Each passion has its own modulation of vocal sound just as it has its own seat for tissual or humoral metamorphoses. You can recall the various sounds, such as groaning, sighing, sobbing, moaning, screaming, and crying, which demand complex and reciprocal operation of all the vocal and respiratory processes; and though they may be reproduced at will, they are, nevertheless, when spontaneous, very critical and exact indices of the soul's condition. Sense impression may confidently be regarded as the main-spring of passion. Passion aroused sends its impulse to the parts where each subordinate attribute of the parent passion has its sphere of action. Philosophers who have analyzed the sense impression, describe it as composed of three principal elements: a more or less distinct initial sensation of pleasure or pain—voluntary or involuntary movements, more or less prominent—and finally, a recurrent sensation consecutive to these movements. Sensation must precede and arouse passion. Out-

side causes must give the tone to the pleasurable or painful character of the emotions. A series of vibrations or motions, supposing that sense-impressions were nothing more, could not have a differentiating influence towards that which is pleasurable or that which is painful. Objects and conditions over which we have little or no control, must be the inspiring causes of emotional ardor. Passion, therefore, has its habitation, as we claimed at the beginning of this paper, far back in the soul-depths and spirit spaces that are yet beyond our power to measure or survey. But passion has its media of communication with the world in which our bodies live (equally available for the to and fro passage of the sense-impressions), and it has its many appropriate fields for the display of its potent energies. We need not dwell any longer upon the subject of the abode of the passions and emotions, when these are latent and undemonstrative. Wherever the soul is, there the passions are at home. When they raid upon the physical nature, the lines of communication and source of supply are never abandoned; hence the soul is often obliged to participate in what is grovelling and ignoble, though sometimes it shares in passionate acts which are pure in their inspiration, and noble and heroic in their execution.

When we turn to consider the agencies of the passions, we will find that they consist of two principal types or orders, viz: those which affect the body in its physical conditions, and those that affect the whole being of man, body and soul, in its social relations.

(To be continued.)

ART. VII.—*Treatment of Piles and Prolapsus of the Rectum by Injection into the Rectum of Extract of Ergot.* By G. WM. SEMPLE, M.D., Hampton, Va.

In 1868 I operated with the ecraseur on R. M. B. for piles, from which he had been suffering since 1863. The disease began to return in eighteen months, and increased to such an extent, accompanied by prolapsus of the rectum, that for three years there had been a considerable loss of blood every day, and it had been necessary that he should lie down after each evacuation of his bowels to await the return of the prolapsed

rectum, when, on the 8th of April last, I operated on him by the application of nitric acid. This, contrary to my usual experience, produced violent pain and irritation of the neck of the bladder, requiring for three days large and repeated doses of morphia.

After healing of the slough, the piles still continued to bleed and to be painful, but the patient was unwilling to submit to further operative procedure. Having at the time under successful treatment, by ergot, a mammary tumor, and my attention having been called to the relief of varicose veins by the hypodermic injection of ergotin, and remembering that in several cases of imperfect involution of the uterus, in which I had successfully prescribed ergot in combination with sulphates of quinine, iron and strychnia and extract of cannabis indicis, in which piles co existed, they also had been cured, I ordered the injection of ʒss of the fluid extract of ergot, with ʒss of water, into the rectum after each evacuation. Though the patient has been irregular in pursuing the treatment, he has since seldom had any discharge of blood or suffered any inconvenience, and now considers himself cured.

On the same day (May 1st) this prescription was made, B. H. E., convalescent from typho-malarial fever, who had suffered with piles and prolapsus of the rectum for 15 years, daily losing blood, and being obliged to lie down after every evacuation to await the return of the prolapsed part before resuming his work, called on me for advice. Ordered the same treatment, which he pursued steadily. At the end of six weeks, having had but one discharge of blood, he felt himself well, saying he was a new man.

This patient's spleen had been greatly enlarged for many years, and that, much to my surprise, was reduced to its normal size by the treatment.

I have since prescribed the same treatment in three other cases of piles, all of which have been cured. One of the patients was a pregnant woman. No labor pains were produced or inconvenience felt.

In some medical journal published in June, Langenbeck's recommendation of the hypodermic injection of ergotin under the mucous coat of the rectum was first brought to my atten-

tion; but the painless operation of injecting the extract into the rectum, where it will certainly and quickly be absorbed by the vessels of the affected part, would seem greatly preferable—substituting an operation, too, that may be done by the patient himself, instead of one requiring the frequent services of the surgeon. Medicines dependent for their action on absorption, according to my experience, act much more favorably on the genito-urinary organs when introduced into the rectum than into the vagina; and doubtless in the treatment of fibroid tumors of the uterus, the injection of ergot into the rectum would be found the best mode for its administration.

Clinical Reports.

Case of Organic Stricture of the Œsophagus. By ANDREW H. SMITH, M.D., New York, Surgeon to Throat Department of the Manhattan Hospital, and Physician to St. Luke's Hospital.

J. C., aged 57, Ireland, mason, applied at the Throat Department of the Manhattan Eye and Ear Hospital December 28th, 1873. He states that his health was perfectly good until July 4th of this year, when he noticed for the first time a slight difficulty in swallowing. He thought little of it at first, but found that it grew worse day by day, until, becoming alarmed, he applied to a physician. A medicine was prescribed which, he declares, would not pass the constriction in the gullet, but remained there, and, as he believes, "destroyed him entirely." At all events the difficulty in swallowing increased rapidly after that, and for a long time he has been able to get down only liquids. This morning he found himself unable to swallow even these, and much against his will is obliged to apply again for medical aid. Has never had syphilis, and has never swallowed any hot or corrosive substance.

External inspection and palpation, as well as examination of the throat with the finger, gave a negative result. An olive-pointed bougie, half inch in diameter, passed readily down the

œsophagus until it reached a point about an inch above the top of the sternum, where it was abruptly arrested. Successively smaller ones were tried, the smallest about one-eighth of an inch in diameter, but without success. With the smaller instruments the stricture presented a hard and somewhat rough and knobby feel. The examination caused but little pain; but when the smallest instrument above mentioned was found not to enter the stricture, it was felt that the use of a still smaller one would be fraught with danger, as the coats of the tube being weakened and possibly ulcerated, the point might easily pass through or between them. Moreover, an attempt at systematic dilatation of the stricture, which was now clearly seen to be carcinomatous, could not be successful, and was not to be thought of. Still the examination resulted in decided benefit to the patient, for he was able to get down a little water immediately afterwards; and I found subsequently that the swallowing was always rendered easier for a short time by pressing gently upon the stricture even with a large bougie.

This was the only treatment resorted to for about a fortnight, when the patient passed into the hands of a surgeon who got past the stricture with a very fine bougie, and on the strength of this promised a cure by dilatation.

He did not come under my care again, but I learned from his family that he was able to swallow a little milk until about the first of June, after which he took nothing more by the mouth, but was kept alive by enemata. He died of inanition July 4th, 1874, exactly a year after the appearance of the first symptoms.

The diagnosis in this case was based upon the following points:

1st. The age of the patient corresponding with that in which cancer most frequently occurs.

2nd. The absence of any cause which could have produced fibrous or cicatricial stricture, such as swallowing hot water or a strong acid or alkali.

3rd. The absence of a syphilitic history.

4th. The hard, rough and knobby character of the stricture.

As nine-tenths of the cancers causing stricture of the œsophagus are of the epithelial variety, we should not look for secondary deposits in the viscera, and their absence, therefore, constituted no argument against the malignant character of the stricture in this case.

One of the usual accompaniments of cancerous stricture was absent, viz: copious mucous expectoration.

This case, in connection with the one which I presented in the October number of the *Monthly*, illustrates the difference in gravity and significance of two affections having the same subjective symptoms.

Correspondence.

Hare-Lip and Club-Foot in the Negro.

Mr. Editor:—In the September No. of your medical journal, you copy the report of an operation for congenital hare-lip in a negro, by Dr. R. W. Gibbs, of South Carolina, which was published in the Trans. of the Medical Association of that State. "This case is reported chiefly on account of the remarkable rarity of such arrests of development in the African," and in corroboration of this fact, Dr. G. gives the observations of several distinguished surgeons, Profs. S. D. Gross, Paul F. Eve, H. F. Campbell, J. T. Gilmore, and others.

These are certainly great names—some of them stars of the first magnitude in the medical firmament, yet I am forced to differ with these gentlemen in their conclusions as to the rarity of hare-lip and talipes in the negro race. I will report in this article more cases than all of them combined, though my professional experience is perhaps not half so great as any one of them.

My practice among the negroes extends over a period of fourteen years, and in a locality where the black race is greatly in excess of the white. Basing an opinion, therefore, upon my own observations, I believe that hare-lip and talipes, and, in fact, most congenital malformations, are not only as frequent in the African as in the Caucasian race, but are even more numerous. I give this opinion with the most respectful deference to the eminent gentlemen heretofore named, whose observations seem to lead to an opposite conclusion. These surgeons all live in large cities, where the negro race seems to be more civilized and bet-

ter cared for, and are apparently better specimens of the *genus homo*, in every respect, than their "country cousins." Let the physicians from the rural districts send in their observations on this subject, and I think my opinion will be confirmed. I report the following cases, most of them in my own immediate locality, though I am satisfied I have seen many cases whose names and localities have escaped my memory :

Hare-Lip—Four Cases.

Case 1.—Lindsay Drake, son of Wesley Drake, age about 8 years ; fissure in lip on left of the median line, extending through left nostril, with cleft through maxillary bone, hard and soft palates clear back to fauces. The fissure is an inch wide through its entire length.

Case 2.—Prince Fleming, age about 17 ; fissure about an inch wide on left of median line ; no cleft in palate.

Case 3.—Emanuel Erwin, age about 17 ; fissure right of median line ; cleft in hard and soft palates.

Case 4.—Louis Johnston, age about 25 ; has been operated upon ; lives in Marion ; particulars of his case not remembered.

Talipes—Eleven Cases.

Case 1.—Charlie Parrish, age 5 years ; talipes varus, right foot.

Case 2.—Infant of Dock Richardson ; talipes varus, left foot.

Case 3.—Wright Whitsett, an old man ; talipes varus in both feet ; has left this locality.

Cases 4 and 5.—Alfred Curry and son ; both club-footed and knock-kneed ; know them only by character ; live about 8 miles from me.

Case 6.—Edmund Gibbs, aged about 45 ; talipes valgus of left foot.

Case 7.—Edmund Dawson, age about 55 ; talipes valgus in both feet.

Case 8.—Zack Harrington, age about 35 ; talipes varus in both feet.

Case 9.—A boy about 8 years old ; lives in Marion ; talipes in one foot.

Cases 10 and 11.—Two children of Mark Myatt ; one a boy aged 3 years, the other a girl aged 5 ; talipes varus in left foot each.

Besides the above cases, I know of two others. In one case there is great deformity of both legs, with talipes in both feet

besides. He is so deformed that locomotion can only be effected by the combined use of arms and legs in a crawling attitude. The other case, Granville Jack, has no bones in one foot except the tarsal.

I frequently meet with other deformities in the African, such as genu valgum, extra fingers and toes, imperfectly developed and pedunculated tumors about fingers. All the cases above reported are genuine Africans, with one exception (and that is about $\frac{7}{8}$), and all are congenital cases. You will also notice that, with one exception, all are males. I send this report at your request, and have given names and localities, so that any doubting Jonas can satisfy himself as to its accuracy.

Very truly, &c.,

J. HUGGINS, M.D.

Newbern, Ala., Sept. 22, 1874.

PHILADELPHIA, Sept. 21, 1874.

Jefferson Medical College—Hospital Advantages—University Hospital—Societies—Libraries, Museums, &c.—Prospective Jefferson Hospital, &c.—Sanitary Condition, Children's Free Excursion, &c.

Mr. Editor:—It was my pleasure to find the September number of the *Virginia Medical Monthly* upon my office table yesterday. As a new and worthy enterprise, I am sure it will be gladly welcomed by all who are interested in the advancement of medical science; while its attractive appearance and the valuable and interesting character of its contents will go far to make it a success.

Perhaps a few items of medical news from Philadelphia may not lack interest to most of your readers, especially as the professional culture and attainment of so many of them has been nurtured and encouraged by those two great and respectable centres of medical education, the University of Pennsylvania and the Jefferson Medical College. Both of them are remembered with kindly thoughts throughout the entire *South* by thousands who feel grateful to their old Alma Maters; and the

pleasant recollections of their sojourn here in the pursuit of knowledge will ever cling to them like the memory of past joys. The "Old University" will begin her one hundred and ninth session on the first Monday (5th) of October, with greatly increased facilities in all her branches of teaching, and the prospect of a large class for the coming winter is very favorable. The establishment of new lectureships upon subjects very necessary to the modern physician, and the award of prizes for perfection in anatomy and research in general and clinical medicine and chemistry will be a healthy stimulus to the student who may need a spur towards making a good honest effort in the cause of science. The new and commodious building of the medical department at Thirty-sixth and Locust streets is used for the first time this fall, and the well ventilated, airy lecture-rooms, the laboratory and dissecting-room, compare to great advantage with the insufficient accommodations that an increased number of students compelled them to resign.

The hospital advantages of Philadelphia have been much augmented of late, and the liberal legislation of the State has given an impulse to the study of practical anatomy. The Pennsylvania, Philadelphia, Episcopal, Presbyterian, St. Mary's, St. Joseph's, Charity, Children's, University, and other hospitals, containing in all a capacity of more than three thousand beds, are accessible to the student for observation of disease; while ample opportunity for acquirement in the various specialties is offered by a number of hospitals, infirmaries and dispensaries devoted to these several objects.

The University Hospital, formally opened last spring by appropriate addresses and a sumptuous banquet afterwards, is situated immediately behind the University, and has all the modern improvements in heat, light and ventilation. Everything is arranged to the most complete comfort of the patients and convenience to the physicians. Dr. Claudius B. Mastin, of Mobile, delivered the opening address, and entertained for an hour and a half a large and appreciative audience. A few days ago this hospital received its first patients, and has now a provision of about two hundred beds. Its capacity will gradually be enlarged to the accommodation of five hundred. The resident physicians will be elected by competitive examination, no partiality being

shown as a result of local or personal influence, students from all localities having an equal chance. Students will also in turn act as "dressers" in the wards under the supervision of the medical residents. The most abundant opportunity will be afforded for clinical instruction, and the lectures of the professors will be illustrated by cases in point.

Our medical societies are working with renewed vigor after the summer vacation. The Pathological Society has just issued a report of their transactions in a neatly printed and handsomely bound volume of two hundred and fifty pages. This report is equal in all respects, and superior in many to that of any Society of a similar purpose. It is arranged with system, and indexed alphabetically. The meetings are well attended, and an abundance of material is always presented by the members. Dr. Wm. Pepper, the President, is doing much to keep up the good tone and promote scientific interest by a general discussion of the subject in hand, and the committees are energetic in performing their separate duties. The County Medical, the College of Physicians and Surgeons, and the Obstetrical Societies are doing their part as vigorous and well-working scientific bodies, and to-day Philadelphia can claim for its doctors a rank for professional attainment and dignity that she may well be proud of.

I would call the attention of physicians visiting this city to the library of the College of Physicians, containing fifteen thousand volumes upon all subjects pertaining to our noble art. The library of the Pennsylvania Hospital is also large and comprehensive, and free to all regular practitioners for the purpose of reference or research. The pathological museums of the city are continually receiving valuable contributions, and the immense number of specimens they now possess would well reward a visitor for a day spent in their inspection.

We understand that the authorities of Jefferson College are making efforts to raise funds for the erection of a hospital to be under their control. The State has offered them a considerable sum on condition they get by private contribution a like amount. The site now occupied by the Deaf and Dumb Asylum at Broad and Pine streets is spoken of as the probable location, if the undertaking is to become realized. It will supply a want much

needed by their present demands, and it is to be hoped they will succeed. Philadelphia has now a hospital area of equal extent to that of New York, but by far more accessible.

The sanitary condition of the city during the summer has been excellent, and the mortuary record shows a comfortable decrease when placed beside that of last year. The children's free excursions to Fairmont Park and up the Delaware seem to have had a beneficial influence in attaining this result. Cholera infantum has not been so prevalent, and infant mortality in general has been considerably reduced. These excursions are sustained by private charity, and from twelve hundred to two thousand young children per week are thus enabled to spend a day in the country and at the same time be supplied by a healthy and nutritious diet. The mothers of the very youthful ones are in attendance, and perhaps are equally benefited. A corps of competent physicians accompany them. The expense of each trip is about six hundred dollars.

The Children's Hospital has established a sea-side home for their convalescent patients in warm weather at Atlantic City. The building is ornamental as well as useful, and is never in want of a full quota of inmates. The ladies are particularly interested in this benevolent design, and are the prime movers towards its support. Concert and glee clubs have also from time to time given them "benefits," that have materially helped eke out the outlay for necessary expenditures. C. P.

Lactopeptine.

Mr. Editor:—My attention was accidentally directed, over two months since, to a preparation announced in the "Medical Record" under the name *Lactopeptine*. The different ingredients therein mentioned as entering into its composition, with the exception of ptyaline, having been used separately by myself in cases of impaired digestion for some time, I was forcibly impressed with the importance of the remedy as announced. I have not yet had an opportunity of using it in any case of an extraordinary nature; but from the results obtained in the fol-

lowing, I think I can safely say that it is very much superior to pepsin :

Case 1.—M. S., a clerk, of sedentary habits, suffered for months with a feeling of great weight in the stomach, which gradually became worse, although he had taken pepsin and other remedies, until, when he came to me, he was able to take food but sparingly. I ordered him the wine of lactopeptine in moderate doses, and was pleased to find a decided improvement after a few days, which has steadily increased. At the present time, the depression is entirely removed, and he appears to be entirely recovered.

Case 2.—A young man, from over-anxiety of mind and irregularity of habits, had contracted a very complete case of dyspepsia. The symptoms were well marked, and his sufferings had already told seriously upon his health. In this case I prescribed the elixir of lactopeptine in full doses, and it was not many days before the disease yielded to the treatment. When I last saw him, he was apparently as well as ever.

My observations thus far lead me to believe that in lactopeptine we have a very efficient therapeutical agent in certain cases of dyspepsia and kindred diseases, and one which will prove a valuable addition to our materia medica.

Since treating the foregoing cases, I have been using the powder of lactopeptine, and consider that the best form in which to administer the remedy, being certainly more effective in its results, and more powerful in its action.

Very truly,

GEO. W. WELLS, M.D.

New York (city), Sept 5, 1874.

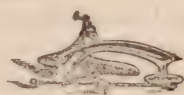
Analyses, Selections, &c.

A Self-Retaining Vaginal Speculum.—The accompanying illustrations represent a self-retaining speculum, acting on the principle of Sims', introduced by Prof. A. F. Erich, (*Baltimore Surgeon and Physician*, Sept., 1874). It is claimed that by its use all vaginal and uterine operations may be performed without an assistant :

Fig. 1.—Speculum folded up in its most portable shape.

Fig. 2.—As used with the patient upon her knees, the most favorable position for showing all its parts. It can be used with equal facility in the left lateral semi-prone position.

Before the speculum is applied, the patient ought to loosen such portions of her dress as may compress her abdomen; then put her head and right arm through the loop of the strap, and assume the position represented in the wood cut, her back curved downward, knees separated about 8 or 10 inches, and thighs at right angles with the table upon which she is kneeling. Now grease the retractor and introduce it upon the index finger of the right hand, pushing it gently but firmly up as far as possible; press the tip of the retractor with the finger toward the sacrum as far as the posterior wall of the vagina will yield to gentle pressure, and use the screw *G* to secure it in the position thus attained. Then draw the ascending lever *H* upward until the perineum is sufficiently retracted, and fix it in that position by attaching the strap to the hooks at the upper end of the lever *K*. Should there be lateral version, the instrument can be adjusted to any desired lateral angle by lightly loosening the screw *C*; should there be other displacements of the uterus, these may be adjusted and the uterus fixed in any desired position by means of the depressor.



ERICH'S SPECULUM



A—Speculum; right wing longer than left, to support right buttock in left lateral semi-prone position.

O—Depressor, having sliding and circular motion. May be fixed in any desired position by tightening screw *D* by which it is attached to speculum. A few turns of same screw in opposite direction will detach depressor and washer into which it slides, leaving opening of speculum unobstructed. Depressor may then be used with the hand as an ordinary one.

B—Screw by which the speculum can be detached and others of different sizes secured to the levers.

G—Screw by which the antero-posterior angle of the

speculum may be adjusted.

C—Screw by which speculum may be fixed at any desired lateral angle.

H—Ascending lever, with row of steel hooks at its upper extremity for attachment of the strap.

L—Strap passing under right axilla and over left shoulder, united ends of which are attached to lever *H*, securely fixing it at any degree of tension.

To use the speculum in the left lateral semi-prone position, the same directions should be followed, excepting those relating to the position of the patient, which is the same as that described by Sims for the introduction of his speculum.

While the depressor is only occasionally required to expose the cervix in the knee position, it is generally needed in the lateral position, to bring the cervix into view by gentle traction made with it upon the anterior wall of the vagina.

The special points in favor of this instrument are the following:

The force necessary for retraction of the perineum is exerted upon the shoulder, not against the sharp edge of the pubic arch. It can, therefore, be used without pain in the most muscular subject, and enables us to retract the perineum to its fullest extent.

It leaves the orifice of the vagina as free of all obstructions as Sims' speculum, and has therefore been frequently used to facilitate the introduction of pessaries.

It follows all the motions of the patient, never losing its relative position to her body. In consequence of which it is even superior to Sims' speculum when held by a skillful assistant, especially during tedious operations, when it frequently becomes necessary for the operator to correct the position of the speculum; this difficulty being unavoidable while the speculum is supported by the hands of an assistant, and consequently liable to move independently of the patient's body, and while the assistant cannot be in such a position as to enable him to see whether the speculum is in its proper position or not.

To Remove Rings from the Finger.—Dr. William Hauser, Bartow, Ga., who, during the late war, had a quiz class in the Medical College of Virginia, states in the *Atlanta Med. & Surg. Jour.*, October, 1874, that many years ago he learned from a young Charleston doctor how to remove a gold ring. Wipe the finger perfectly dry, and then pour quicksilver over the ring. After waiting a few moments, a sudden pressure upon the ring with the thumb and fore-finger will snap it.

Dr. Hauser suggests the following method to remove a brass ring: Pour melted bees-wax all over the ring and enough to run under the ring and to fill up the gaps between the ridges on the afflicted finger. With a pen-knife cut out a line, as it were, of wax across the ring; and upon the ring thus exposed, pour a drop or two of either of the mineral acids—preferably sulphuric acid. Let this stand until the copper and zinc (of which

brass is composed) are combined with the acid. The ring can then be broken by pressure with the fingers.

Monobromide of Camphor.—Dr. Bourneville, of Paris, who has been experimenting with this new agent in certain nervous affections, says (*Practitioner*) that in *insomnia* he gave it in two cases—to one in four-grain doses at bed-time, and to the other eight grains—with the effect of securing sleep. In three cases of chronic paralysis agitans, the monobromide diminished the agitation and slightly increased sleep. An excessively chronic and violent case of chorea was much tranquilized while taking the drug. In *hystero-epilepsy*, of which Dr. B. had two cases, he gave eight to ten grains of the medicine daily, increasing the quantity by two grains every five days, with notable amendment. In five cases of *epilepsy*, all of long-standing, the results, without being conclusive, were sufficiently satisfactory to encourage a further trial of the remedy. Dr. B. exhibits the monobromide in pill, or dragée, and hypodermically. For the first he covers two grains of the monobromide with a sufficient quantity of sugar to preserve it from contact with the air and to facilitate its administration. For hypodermic use he dissolves forty-five grains of the monobromide in nine drachms of alcohol and four and a half drachms of glycerine, and of this solution injects from forty to fifty drops.—*Amer. Prac.*, Oct., 1874.

Proceedings of Societies.

RICHMOND ACADEMY OF MEDICINE.

September 17th.—Dr. James C. Deaton exhibited a dried specimen of an *aneurism of the transverse aorta*, which he had recently removed from the body of a negro man. (We regret that we have not the space in this issue to publish the full clinical report of the case, which, however, will appear in the December issue).

Embolism.—Dr. George Ross was recently called to a patient with left hemiplegia. Mind unaffected; pulse rapid; perspiration profuse. The next day he found the radial pulse strong—140 per minute. Being called out of the room for a few minutes, Dr. R. found on returning that the patient complained of tingling sensations in the right arm, and the right radial pulse was imperceptible. The pulse of the left wrist was natural, and

sensation on the left side of the body was normal. Owing to excessive cardiac action, hurried respiration (which the patient found difficult to check even long enough for auscultatory purposes), and the presence of abundant mucous rales, auscultation of the heart was unsatisfactory.

Dr. Hunter McGuire had known this patient to be the subject of organic heart trouble for some time.

Typho-Malarial Fever—the subject for the evening's discussion. Dr. R. T. Coleman said that since the late war it has become a comparatively rare circumstance to find pure types of disease; and to some extent this remark was applicable to Richmond before the war. Since the war the city has become more malarious, for which there are numerous causes. The slipshod system of agriculture around the city during and since the war, which has permitted the undisturbed growth and decay of rank vegetation; the felling of forests; the custom which seems to have been pursued too often in this city, of commencing work on the streets, but not completing it, thus keeping exposed to the summer's sun upturned soil rich in organic matter; the great conflagration (of April, 1865) and the removal of debris which exposed surfaces that had been covered for a half century—such things as these have furnished conditions sufficient for the production of malaria in Richmond. Dr. C. thinks that the proximate cause of typhoid fever lies in the emanations arising from decaying timber. Physicians who have practised in the country have often noticed that old negro huts and log cabins are the favorite homes of typhoid fever. As an illustration of the principle, Dr. C. mentioned that in a certain house in this city, the foundation of which was partly of carpenter's shavings, of 28 persons who lived in the house in 8 or 9 years, 18 had typhoid fever. On this theory, it is easy to explain why the disease is so prevalent in certain portions of West Virginia. On one occasion during the late war, the brigade to which he was attached camped at Valley Mountain. The regiment of which he was surgeon at the time, camped in a field where the trees were still standing, but had been killed by belting, typhoid fever prevailed. The other regiments occupied open fields and forests, but did not suffer from the fever. Dr. C. still further illustrated his views regarding the origin of typhoid fever by reference to the epidemic of this disease a few years since at the University of Virginia, which was traced to the debris which had accumulated in the wood cellars under the dormitories during a number of years. Having just accounted for the existence of the malarial element in the diseases of the city since the war, he contended that the typhoid element could be ex-

plained by the fact that a large amount of timber, but partially consumed by the fire, had been left to decay in the burnt district. In addition, nearly all the basement floors of the city had become decayed during the war, and the poverty of their owners since the war precluded their being renewed. As a consequence, there was a nidus of typhoid fever in almost every house. And the disease did prevail more extensively the year following the war than an epidemic of any other disease within his knowledge in the city—not even excepting cholera. Amongst other striking illustrations, he mentioned the case of one family living in a large double brick house, the basement floors of which were all decayed, in which 6 cases of typhoid fever occurred. With these morbid elements in our atmosphere—malarial and typhoid—it was not surprising that our diseases present the mixed type, which justified the term, now applied to them, of typho-malarial. This typho-malarial form of disease he saw strikingly developed during the opening of the Chesapeake and Ohio railroad tunnel under Church Hill. Quinia was required to eliminate the malarial element; still the disease continued, and obeying the law of typhoid fever, reached its crisis in some multiple of seven days.

Dr. F. B. Watkins knew of a number of cases of typhoid fever which had occurred in the decaying cabins often found in the country. Regarding treatment, while quinia does reduce temperature, he believes it also acts as an irritant in this disease and should not be used. Cold baths and sponging are the best agents for the reduction of temperature.

Dr. Hunter McGuire thinks quinia always injurious in typhoid fever. He agrees with Dr. Coleman in attributing typhoid fever to decaying timber in the majority of cases; but he is also confident that he has seen cases due to the effluvia, dejection, &c., of typhoid fever patients.

Dr. Coleman thinks quinia a good agent to make the diagnosis between remittent and typhoid fevers. He does not believe the emanations or dejections of typhoid fever patients have any causative relation to typhoid fever, but they do give rise to *typhus* fever—between which and typhoid the distinction is too frequently ignored even at this day.

Dr. McGuire had often noticed that the removal of typhoid fever patients—even for short distances—resulted unfavorably to them.

Dr. Coleman thought differently. When compelled to remove several hundred typhoid patients during the war from Valley Mountain over rough roads and in miserable wagons, much to his surprise at the time, the patients were benefited,

and only two of the large number died. He is satisfied the mortality would have been greater had they remained at Valley Mountain.

Drs. Watkins and Edwards mentioned cases that had occurred in their respective practices, in which removal of patients—in one instance only across the street—had resulted in death.

Drs. W. W. Parker, J. S. Wellford, and Chas. H. Smith narrated different experiences.

Dr. Wellford was satisfied that at Jackson Hospital, near this city, during the war, typhoid fever patients were indeed benefited by removal from the wards to the tents. And Dr. Smith, when serving as Surgeon, U. S. A., before the war, had a typhoid fever patient moved in an ambulance more than 600 miles over the Western Plains without apparent injury.

Dr. John M. Payne said that in East Florida, where there are many forests of belted trees, and where there is consequently much decaying timber, typhoid fever does not prevail in that section. The various fevers of that section are cured by quinia.

Book Notices, &c.

Therapeutics and Materia Medica. A Systematic Treatise on the Action and Uses of Medical Agents, including their Description and History. By ALFRED STILLE, M.D., Professor Theory and Practice, and Clinical Medicine, University of Pennsylvania, etc., etc. Fourth Edition, thoroughly Revised and Enlarged. In Two Volumes. Philadelphia: Henry C. Lea. 1874. Vol. I, pp. 908; Vol. II, pp. 976. 8vo. Sheep. Price \$12.00. (For sale by West, Johnston & Co., Richmond).

The former editions of this work are so well and favorably known, that we need do scarcely more than announce that this edition is now ready and *thoroughly* revised. About 250 pages have been added, while portions, such as the article on Electricity, by Dr. M. J. Grier, have been entirely rewritten. The nomenclature throughout conforms to that of the U. S. Pharmacopœia. "Continued study, observation and reflection" have strengthened the convictions of the author in the propriety of the classification of remedies adopted in former editions.

Regarding this classification, we agree that, in general, it is

the more natural; but the arrangement thereby necessitated makes the work less serviceable as a *text* book. The short sessions of our Medical Colleges render it impossible for the professors to notice all the remedies, or even classes; and were they to follow the order given in the work, they would first come to "lenticives," the most unimportant class in a therapeutic sense, while "alteratives," the most important, including remedies which perhaps are most frequently used, are considered in the last chapter of the second volume.

We regret that in a work, so full of accurate description and detail, the author has made no attempt to introduce at any length the results of pharmaceutical investigations. This omission will compel the use of other books which treat more particularly of this department.

We had marked the articles on cinchona, digitalis and chloroform for some remarks; but our space will allow of allusion only to the last mentioned article. Regarding this, *with the statistics presented*, the views of the author are just. In giving his opinion, he concludes with the remark "that the conscience of the medical profession is making its voice heard in protests against a danger to life which neither necessity nor reason justifies."

It has long appeared strange to us that Northern and Southern practice with chloroform have differed so widely in their results. Certainly here in Virginia and North Carolina no one of the anæsthetic class is used half so frequently or satisfactorily. Though we have made careful inquiries of a large number of our professional acquaintances, especially in these States, yet no practitioner that we have consulted has ever seen or personally *known* of a fatal result from the proper administration of this agent. In fact, we have *heard* of only three cases in Virginia since the beginning of the war where death was *attributed* to the anæsthetic; and inquiry regarding each of these makes it highly improbable that either of the deaths was the result of chloroform properly administered.

Of course we do not pretend to say that no death from even careful chloroform administration has ever occurred in Virginia or North Carolina; but it is a *singular coincidence*, at least, that the vast experience of Southern surgeons during and since the war has presented so few cases of injury from its use, that they continue to use and recommend it; and these obtainable facts are of some value in deciding the question of statistics.

Without being able to give exact figures, we are satisfied that it is an underestimate rather than otherwise to state that the combined experience and immediate observation of those we

have consulted would aggregate a total of not less than 50,000 chloroform administrations since 1860, including, of course, the period of the late war. And yet in this large number no death attributable to chloroform is known to the parties. Of course unpleasant symptoms have manifested themselves in some of the cases during inhalation, and accidents have been noticed as results, but no *death*. It is not to be wondered at, then, that chloroform is still the favorite anæsthetic in this section.

We do not pretend to explain the statistics above given. It is comparatively rare, however, that the agent is used for patients in the dental chair; and from our limited observation of the use of anæsthetics in the practice of Northern physicians, we have frequently had occasion to remark that it has seemed that the Southern practitioner insists more strenuously upon the recumbent position of the patient, and that in general he is more careful in the observance of the rules laid down for the administration of chloroform—especially that regarding the free admixture of atmospheric air, &c.

Nothing that we have said is to be taken as an expression of mere personal views; the opinions stated by implication are shared by a large majority of the leading practitioners of the section of country which in part we represent. We do not deny that deaths have resulted from even the *proper* administration of chloroform; but Southern surgeons, as a class, do believe that the statement of the proportion of "one death in 2,000 or 2,500 administrations," as given by our author, is *entirely* too large a mortality as observed in their practice.

Under the head of restorative measures in chloroform narcosis, we regret that no mention is made of Nélaton's method—allowing the trunk and head of the patient to hang down until circulation and respiration return. Some life might be saved had sufficient prominence been given to this simple and rational method—of which a synopsis will appear in our December number.

In the article on cinchona, we are sorry to see no reference to Prof. O. F. Manson, of this city, whose published experience with quinine in pneumonia has furnished even more remarkable results than those of Dr. Corrigan, whose recommendations are alluded to. And in the article on nitrate of silver, no credit is given Dr. Wm. A. Gillespie, of Louisa county, Va., for the important part he took, about 1832, in introducing the agent to the favor of practitioners in the treatment of stomach and bowel diseases. In fact, the original observations of many Southern physicians which have materially advanced the position of Therapeutics have been overlooked by Dr. Stillé. This no doubt arises from

the utter impossibility of any author to review the pages of every journal published in the land, as also from the fact that Southern journals are not patronized by Northern writers with scarcely a tithe of the liberality that Northern journals are by Southern practitioners.

As a whole, the volumes before us are cordially recommended. We know of no treatise on *Therapeutics* that is more thorough and accurate, in detail, or more impartial or just in dealing with published facts.

Practical Treatise on the Diseases of Women. By T. GAILLARD THOMAS, M.D., Prof. of Obstetrics and Diseases of Women and Children in College Physicians and Surgeons, New York, etc., etc. Fourth edition, thoroughly revised. Philadelphia: Henry C. Lea. 1874. 8vo. pp. xix—801. (For sale by West, Johnston & Co., Richmond).

The great popularity of former editions of this great work renders unnecessary at this late day anything like an analytical notice. It promises to become the standard work on gynaecology, as well in Europe as in this country; for already arrangements have been made for its translation into the French, German and Italian languages.

The author is quite enthusiastic in his advocacy of "the great superiority of the levator perinei speculum," and of the lateral position of the patient for examination or operation, claiming that "the practitioner, devoting himself to gynaecology, who does not avail himself of it (Sims' speculum), loses as great an advantage as the auscultator would forego in not bringing to his aid the double stethoscope of Camman."

Regarding tents, Dr. Thomas thinks "the practitioner should no more think of preparing his own sponge-tents than his extracts or tinctures." It has often occurred to us that there is frequently an obvious propriety why physicians who have "the proper turn" should make all these things for themselves. Certainly many of the preparations which are bought—frequently from honest-meaning apothecaries—are at most second-rate in quality, and cannot be relied on.

But turning over to the chapter on *Ovariectomy*, we are struck at once with the amount of reading and study the preparation of that chapter must have required. Some points, however, seem to be dismissed too summarily. For instance, the author says but little more regarding drainage per vaginam as a means of getting rid of the retained or secreted fluids that are believed to occasion septicæmia, &c., than that he thinks "drainage tubes

passed up into the peritoneum are calculated to increase the dangers of ovariectomy, by opening a way for putrid fluids from the peritoneum into the pelvic cellular tissue." The suggestion advocated by Dr. Hunter McGuire ('Trans. 4th Sess. Med. Soc. Va.)—"just before closing the abdominal incision, to make an opening with a sharp bistoury from Douglass' cul-de-sac into the peritoneal cavity, and to touch the edges of this outlet with persulphate of iron to prevent immediate union of the cut surfaces"—is not referred to; and yet we see no reason why this suggestion would not overcome the very dangers apprehended by Dr. Thomas.

But we had not intended to say so much regarding a book that must be familiar already to all of our subscribers; and without which, neither the general practitioner nor specialist can scarcely hope to succeed in practice, or be posted in theory.

Clinical Lectures on Diseases of the Nervous System. By WILLIAM A. HAMMOND, M.D., Professor of Diseases of Mind and Nervous System, University of City of New York, &c. Reported, Edited, and the Histories of Cases Prepared, with notes, by T. M. B. CROSS, M.D., Asst. to Chair of Diseases of Mind and Nervous System, University City of New York, &c. New York: D. Appleton & Co. 1874. 8vo. pp. viii—287. Cloth. (For sale by Messrs. Woodhouse & Parham, Richmond).

Dr. Hammond needs no introduction to the medical public. The present work is a valuable one. A very excellent and serviceable variety of diseases is brought under notice, and the practitioner cannot fail to be benefited by a perusal of these Lectures.

Some of the views presented, of course, are subject to criticism; while in other of the views, a difference of opinion, at least, is allowable. But in the main, there is so little that is not valuable and well said, that we have no disposition to enter into a review of the few propositions and deductions wherein we differ. Though, perhaps, the least pretentious in appearance and style of any of the publications of Dr. Hammond, it is undoubtedly the best that has ever come under our eye.

Dr. Cross is entitled to the thanks of the profession for the very interesting manner in which these *Clinical Lectures* have been reported, while the publishers are to be commended for the tasty style in which the book is issued.

Clinical Lectures on Various Important Diseases. By NATHAN S. DAVIS, A.M., M.D., Professor Principles and Practice of Medicine and Clinical Medicine, in Chicago Medical College. Edited by FRANK H. DAVIS, M.D. Second edition. Philadelphia: Henry C. Lea, 1874. pp. vi—283. 12mo. (For sale by West, Johnston & Co., Richmond).

The author—upon whose ability and professional zeal we place the highest estimate—has done himself great injustice in permitting the publication of this second edition of his Lectures without a more thorough revision. The slipshod manner in which some of the cases are detailed, and the want of sufficient distinctness in the mention of important symptoms upon which diagnoses are made, and the apparently empirical manner in which prescriptions are written—such things as these will prevent this book from being useful to practitioners, or advisable for students to adopt. Indeed, the reader will often arrive at a different diagnosis from that of the author, or else will be so confused that he will have to take a number of facts as granted that are not mentioned in the reports, in order to coincide with the author in opinion. Certainly in regard to nervous affections and diseases of the brain this book is not comparable to the one by Dr. Hammond, just noticed.

Croup, in its Relations to Tracheotomy. By J. SOLIS COHEN, M.D., Lecturer on Laryngoscopy, &c., Jeff. Med. College. Philadelphia: Lindsay & Blakiston. 1874. pp. 78—8vo. (From Publishers).

This is a reprint from the Transactions of the Medical Society of the State of Pennsylvania, 1874. The views taken by the author are “based on a careful study of the published records of more than 5,000 cases of Tracheotomy in Croup, performed in various portions of the world.”

Among the conclusions are that (1) there are no insuperable contra-indications to tracheotomy in croup; (2) the cautious use of an anæsthetic is admissible; (3) a careful dissection should be made down to the windpipe, and hemorrhage arrested before incising it, whenever possible; (4) the tracheal incision should be as near the cricoid cartilage as possible to avoid excessive hemorrhage, &c.; (5) in introducing the tube, if dilatation is difficult, excise a piece of the trachea; (6) dispense with the tube as soon as possible; and (7) have a skilled attendant with the patient—certainly for the first 24 or 48 hours.

Infant Diet. By A. JACOBI, M.D., Clin. Prof. Diseases of Children, College Physicians and Surgeons, New York. Revised, Enlarged, and Adapted to Popular Use. By MARY PUTNAM JACOBI, M.D. New York: G. P. Putnam's Sons.

This duodecimo of 119 pages is a very interesting little work. No task is more delicate in its nature or more difficult of accomplishment than the writing of a medical book for popular use. And we should therefore judge with leniency the injunctions sometimes given to mothers and friends, which, unless the object of the work be comprehended, might subject the author to unjust censure or criticism.

In the book before us, we may mention a few of such empirical injunctions which, among physicians, will not receive their approbation. For instance, the rule stated, on page 118, give a baby of six months and over *no sugar*, is manifestly at variance with accepted teachings on the subject. Again, every practitioner has seen cases in which teething was an important factor in the causation of what is usually termed summer complaint of children, though we find our authors state that this complaint never arises from teething.

But our purpose in this notice being chiefly to bring the work to the attention of physicians for their recommendations, we would only add that they should first read the book for themselves and mark the several passages for their non-professional readers, about which some explanatory remarks are necessary.

Hydrophobia: Means of Avoiding its Perils and Preventing its Spread. By H. BOULEY, Member of the Institute of France, General Inspector of the Veterinary Schools of France, etc. Translated by A. LIAUTARD, M.D., V.S., Principal Surgeon, &c., N. Y. College of Veterinary Surgeons. New York: Harper & Brothers. 1874. Price 35 cents. (For sale by West, Johnston & Co., Richmond).

This is an interesting pamphlet of 61 octavo pages, gotten up in good style, and of interest just at this time, only because certain parties have recently made *very* "much ado about nothing." Our recommendation about hydrophobia is to kill all the curs, snarling fice dogs, and American skunks, or tax them so heavily as to force them to be fewer in number. The essay under notice is somewhat sensational in character.

Essentials of the Principles and Practice of Medicine. A Handbook for Students and Practitioners. By HENRY

HARTSHORNE, A.M., M.D., Prof. Hygiene, University of Pennsylvania, etc. Fourth edition, thoroughly revised, with 100 Illustrations. Philadelphia: Henry O. Lea. 1874. 12mo. pp. xii—548. (For sale by West, Johnston & Co., Richmond).

This is another of the books that, because of its popularity, we do not feel called upon to notice further than to say that this fourth revised edition is fully up to the day. As a handbook, which clearly sets forth the *Essentials* of the Principles and Practice of Medicine, we do not know of its equal.

The Physicians' Visiting List for 1875. Philadelphia: Lindsay & Blakiston. (Sold by all booksellers and druggists).

Besides the necessary blanks for Visiting List and various memoranda of service to the physician, this List contains an Almanac, Table of Signs, Hall's Ready Method in Asphyxia, Poisons and their Antidotes, Table for Calculating Period of Utero-Gestation, &c.

So generally a favorite is this List, that it is only necessary to announce that the edition for 1875 is now ready.

Editorial.

MEDICAL SOCIETY OF VIRGINIA.

By authority, the Transactions of the recent session held in Abingdon, will appear in connection with our December number. Hence we will not attempt a report of the proceedings in this issue.

The publication of the late Transactions is thus made by the Society simply to lessen the current expenses for the year. The editor of the *Monthly*, however, accepts the offer because he can thereby furnish subscribers with much valuable matter in the December number that would otherwise necessarily be crowded out of the journal.

We are glad, moreover, to have this endorsation by the Society of our enterprise, and we appreciate it the more in that it was voluntary on their part.

Drs. Alfred G. Tebault, Hugh McGuire, William Owen, John P. Mettauer, and Joseph S. Edie, of Virginia; and Drs. Joseph

Jones, La., J. Marion Sims, N. Y., and Paul F. Eve, Tenn., were elected Honorary Fellows.

The session was in every respect a most pleasant one, and full of profit to those in attendance. The profession, not only of Abingdon, but of the Southwestern section of Virginia, deserve special thanks for the assiduous manner in which they applied themselves to make this a successful meeting.

We were glad to meet at the session Drs. R. L. Payne, Lexington, and H. T. Bahnsen, Salem, delegates from the North Carolina Medical Society, and Drs. J. H. Dulaney, N. T. Butler, and ——— Hicks, of Tennessee.

"The Kentucky Journal gave, it seems, to the Transactions of the Virginia Medical Society credit for matter of which the Virginia journal had previously made an abstract."—Sept. No., p. 355.

In our July issue, we distinctly stated that the article above alluded to was "written expressly for, and published in, the April number of the *Monthly*," and that "no part of the article ever appeared" in the Transactions of the Virginia Medical Society.

"*It seems*" that the "Kentucky journal" is in error in "one of the best and most costly [numbers] yet issued," as the editor informs us (page 356) this September number is. What may we not expect in an inferior and less costly number?

But it is a little strange that after all that has been said, the November number of the *Detroit Review of Medicine and Pharmacy* has occasion to complain that *sixteen* extracts have been made from its pages by the *American Medical Weekly* without credit by the latter journal.

The Archives of Dermatology, edited by L. Duncan Bulkley, A.M., M.D., G. P. Putnam's Sons, New York, publishers—subscription \$3 *per annum*—made its appearance with the October number. It is beautifully gotten up, and in the matter of the journal we have not been disappointed. It at once assumes rank among the leading authoritative journals of the country, and it should be handsomely sustained. We hope to see in the next issue (January, 1875) that the editor is encouraged by

present success, and to learn through subsequent issues that it is still growing in favor and in strength.

New Journal.—Dr. James E. Reeves, of Wheeling, proposes to commence on the opening of the new year the publication of a journal, entitled the WEST VIRGINIA MEDICAL STUDENT, a monthly record of the progress of medicine, surgery, and the allied sciences. 32 pages. \$2 per annum. Encourage this enterprise.

The Secretary of the Treasury issued a circular, September 8th, 1874, in which medical officers of the Marine Hospital Service are instructed "at all times to assist as freely as practicable, not only other officers of the Government, but the quarantine authorities in the protection of the public health against the introduction of contagious diseases."

Virginia Medical Colleges.—We are glad to learn that the present classes of medical students at the University of Virginia and at the Medical College of Virginia are the largest since the war. The Faculties of each of these Institutions are far more intent upon the *proficiency* of their students than upon the mere number of *so-called* graduates that might be turned out at their respective Commencement occasions next year.

Superintendent of the Western Lunatic Asylum (Va).—At the late meeting of the Board of Directors of this Institution, Dr. Robert F. Baldwin, of Winchester, Va., was elected to fill the vacancy occasioned by the death of Dr. F. T. Stribling.

Dr. Baldwin has moved to Staunton, and enters upon the discharge of his newly-appointed duties with a high personal and professional reputation to sustain.

We regret that circumstances beyond our control have delayed the appearance of this issue.

Because of the appearance of the Transactions of the Medical Society of Virginia in connection with the December number, we are afraid that that issue will not be ready until about December 10th.

Dr. Wm. A. Hammond's Suit for damages against the *Medical Record* is too little for notice—especially as the editor, Dr. Shrady, has said to Dr. Hammond: “If I am wrong, I am perfectly willing to be set right.” To this end, the columns of the *Record* have been opened to Dr. Hammond; but it seems that he prefers some pecuniary compensation. Such conduct as this should be frowned upon by gentlemen. For the honor of the profession, we hope Dr. H. will at once withdraw this suit, and publicly express regret that it was ever entered.

Chorea in the Negro, Dr. S. Weir Mitchell thinks is rare. If he had practiced much at the South, he would not have thought it less frequent in the negro than in the white race.

We invite special attention of physicians who wish to purchase a practice, &c., in the country near this city, to the advertisement on the first inside advertisement page of this issue.

The American Public Health Association will convene in Philadelphia November 10th.

A New Woman's Medical College is being erected in Philadelphia.

Obituary Record.

Dr. Francis Edmund Anstie, editor of the *Practitioner*—one of the best of foreign medical journals—died September 12th, 1874, in his 42d year.

While making a *post mortem* examination of a child who had died from peritonitis, the middle finger of his right hand was accidentally punctured by a needle, which resulted in general blood-poisoning. He was faithfully attended in his illness by Mr. Brudenell Carter and Drs. George Johnson and Burden Sanderson.

No word of eulogy of Dr. Anstie's character and worth to the profession is necessary. These are known, and his loss will be felt.

Virginia Mortuary Statistics for October, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Health Officers.....		Dr. J. G. Cabell.				Dr. W. M. Wilson.				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		28	30	33	46	7	4	21	11	1	5	7	13
Number still born.....		4		7				3		1		1	
AGES. Ages unknown not calculated.	Under 1 year.....	20		28		Color not given, 20				Color not given, 9			
	“ 3 years.....	11		17		“ “ “ 5				“ “ “ 1			
	“ 10 “.....	4		5		“ “ “ 3				“ “ “ 1			
	“ 20 “.....	2		1		“ “ “ 1				“ “ “ 1			
	“ 30 “.....	3		5		“ “ “ 3				“ “ “ 3			
	“ 50 “.....	9		11		“ “ “ 3				“ “ “ 4			
	“ 70 “.....	7		7		“ “ “ 5				“ “ “ 2			
	“ 80 “.....	...		2		“ “ “ 1				“ “ “ ...			
	“ 100 “.....	2		3		“ “ “ 2				“ “ “ ...			
	Over 100 “.....	...		...		“ “ “ ...				“ “ “ ...
Most frequent Causes of Death.	Alcoholism.....	.....		.....		1		.....				
	Aphthæ.....	.....		.....		.....		1					
	Apoplexy.....	3		.....		.....		.....
	Brain, Congest., Inflamm., &c.....	1		.....		1		.....				
	Birth, Premature.....	2		2		1		1					
	Cancer.....	.....		1		1		.....				
	Cholera Infantum.....	5		5		.....		4		1		1	
	“ Morbus.....	1		.....		.....		.....
	Consumption.....	6		11		1		2		.....		2	
	Convulsions.....	2		3		.....		4					
	Croup.....	1		.....		.....		.....		1			
	Dentition.....	1		10		.....		.....		
	Diarrhœa.....	.....		5		1		.....		.....		1	
	Diphtheria.....	4		.....		.....		.....
	Dysentery.....	3		2		1		.....				
	Fever, Congestive.....	1		2		.....		.....		
	“ Remittent.....	.....		.....		.....		2					
	“ Typhoid.....	2		4		.....		1		.....		1	
	Gastritis.....	1		1		.....		.....		
	Heart Disease.....	1		5		.....		.....				2	
	Hydrocephalus.....	.....		.....		1		.....				
	Inanition, Old Age, &c.....	10		13		1		7		.....		1	
	Meningitis.....	4		2		1		.....				
	Paralysis.....	.....		.....		1		.....				
	Pneumonia.....	1		.....		1		1					
Pyæmia.....	1		1		.....		.....			
Sunstroke.....	.....		1		.....		.....			
Tabes Mesenterica.....	.....		.....		.....		.....				1		
Trismus Nascensium.....	1		1		.....		1						
Whooping Cough.....	1		.....		.....		3		1				
		Census taken in February, 1874.				Population is esti- mated.				Population is esti- mated.			

Dr. Hays

VIRGINIA MEDICAL MONTHLY.

VOL I. RICHMOND, DECEMBER, 1874.

No. 9.

Original Communications.

ART. I.—*Fissure or Laceration of the Neck of the Uterus, Consequent upon Parturition.* By GEORGE T. HARRISON, M.A., M.D., Assistant Surgeon to the Woman's Hospital of the State of New York (New York city).

The medical profession have to thank Dr. Thomas Addis Emmet, of this city, for having called attention to the pathological importance of laceration of the neck of the uterus, and for having pointed out, in so satisfactory a manner, its diagnosis—especially when of long standing—and treatment. As the ordinary textbooks make but slight allusion to this lesion, and so few physicians are aware of its real significance, I feel convinced that it is not a superfluous task that I have imposed upon myself to study the subject at some length.

Fissures of the external os uteri occur so often in parturition, that when of slight extent they may be considered as concomitants of physiological labor. They are generally observed at one or the other side of the os uteri—oftener on the left than the right side, and occasionally on both sides. Still they are not infrequently found involving the anterior or posterior lip, in or near the median line, the anterior being much oftener the seat of the lesion than the posterior.

The explanation of the relative frequency of this lateral situation of the laceration is found by a reference to the mechanism of labor, whence it results that these portions of the periphery of the os uteri are most exposed to injury. Thus in the most frequent form of labor, with the occiput directed to the left,

more or less anteriorly, the laceration will be found on the left side,* where the greatest amount of force is brought to bear. The slighter fissures cicatrize readily, and give rise to no phenomena of importance during the puerperal state, and, subsequently, are hardly recognizable. When, however, another pregnancy occurs, the old cicatrices may be recognized by the circumstance that, when the vaginal portion of the neck of the uterus becomes softened, they do not yield so readily as the rest of the tissue. They are then easily perceived by the touch, and thus become valuable aids in the differential diagnosis between primiparæ and multiparæ. When these fissures† extend deeper, as to the vaginal junction or beyond, they assume a different significance, and then constitute the lesion we have in view. During the puerperal state, these extensive lacerations may exhibit such phenomena as to call attention to them. To quote the language of one of the most accomplished of modern obstetricians and gynecologists, Karl Schröder:‡ “Traumatic fever appears, the vicinity of the wound becomes inflamed, is infiltrated with the products of the inflammation or with blood, the adjacent cellular tissue takes part in the inflammation, and the healing only proceeds in a tardy manner. If the lacerations extend to the neighborhood of the peritoneum, perimetritis, or even a general peritonitis, may be the consequence.” As a rule, however, these lacerations are not recognized during the puerperal condition, and the patient rises from her bed before cicatrization has been completed. If the laceration has taken place in the antero-posterior diameter (or to use the more suitable

* As confirmatory of my views on this point, I refer the reader to the following quotation:

“The frequency of deep fissures of the portio vaginalis is in direct proportion to the number of preceding births, which probably is to be referred as well to an increasing vulnerability of the vaginal portion, on account of the gradually diminishing elasticity of the tissue, as also to a summation of the lesions which have originated in the different accouchements. The lacerations are distributed quite uniformly on the anterior and posterior lips of the os uteri; the two commissures are usually the seats of the deepest fissures, which often extend up to the fornix vaginae, and the left commissure is much more frequently affected than the right.”—Vide, *Berichte und Studien aus Dem Königl. Sächso. Entbindungsinstitute in Dresden*, von Dr. F. Winckel—s. 94.

† Usually longitudinal in direction, transverse fissures only occurring rarely—our theme concerns the first only.

‡ Vide, *Lehrbuch der Geburtshuëfe*, 4te aufl., s. 624.

ble terminology of Henle, where the plane of laceration is *sagittal*), healing still may not be seriously retarded; for, as Dr. Emmet has pointed out, the surfaces are kept well together by pressure of the vaginal walls. When the laceration, however, is lateral, and especially when both sides are involved, in the language of Dr. Emmet,* “the flaps are forced apart on standing, by the posterior one catching on the recto-vaginal septum, while the anterior flap is crowded forward in the axis of the canal, in the direction presenting the least resistance.” The frequent, if not inevitable, result of the irritation set up by locomotion under these circumstances, is arrest of the process of involution and the production of an erosion or ulcer of the inferior portion of the neck.

A consideration of the histological constitution of the cervix, as compared with that of the remaining part of the uterus, will serve to explain why, from the nature of this structure, the cervical tissue is not, as it were, so favorably circumstanced as the rest of the uterine tissue for undergoing the process of involution, under normal relations; and why, under pathological conditions, such as are presented by those lacerations sustained during parturition, defective involution is so very frequently observed in the cervixes of women who have encountered the accidents of even one child-birth. Says Lott,† “we cannot be surprised that the cervix is more readily arrested in its involution than the rest of the uterine tissue, since in the main we must perceive in it an organic part; whilst these active nutritive processes, such as we have the opportunity of observing in the uterus (body), proceed in it in a much more sluggish and irregular manner. *** The increase of the cervical tissue, during pregnancy, is rather growth than new formation, and especially is the connective tissue in excess of the muscular tissue. But this very muscular tissue finds in its own permanent contraction (tetanus) the most potent, if not the sole, factor of its disintegration—its atrophy, if proper provision is not made for its restitution. Now in the body of the uterus the muscular tissue predominates, and during the puerperal state it remains in a

* Vide his paper—Philosophy of Uterine Disease.—*N. Y. Medical Journal*, July, 1874.

† Zur Anatomie und Physiologie des cervix uteri.—von Dr. G. Lott, s. 41.

condition of tetanic contraction and undergoes atrophy, since this very contraction obstructs the supply of blood, and at the same time further nutrition. The connective tissue, however, is thereby much less affected, and this also is susceptible of immediate demonstration. Where, now, the connective tissue predominates, as in the cervix, we can understand that a tissue so constituted is little fitted for involution."

When the subject of a lacerated or fissured cervix comes under clinical observation, it is usually a chronic condition we have to deal with, and the true relations are so distorted that, until Dr. Emmet showed us how to recognize the laceration—into the details of whose method we will enter further on—and insisted upon regarding it as the most important link in the chain of morbid action, attention was fixed exclusively upon the diseased cervical mucous membrane. For, as we have above indicated, the mucous membrane of the lips of the os uteri and that lining the lower end of the cervical canal, is almost always the seat of an erosion. This latter presents itself under several different aspects.

The first and simplest form is the so-called *erosion* or *excoriation*. The cervical mucous membrane being in a hyperæmic condition from the incomplete involution, its epithelium becomes loosened, and under provocation of the friction of the vaginal portion of the neck against the walls of the vagina, is readily detached. The affected part, bared of its epithelium, forms a marked contrast by its deeper red hue and velvety rough surface with the rosy red color of the adjacent healthy tissue.

A second form of erosion we are apt to encounter in connection with these lacerations, is the *granular erosion* or *ulcer*. Scanzoni insists very properly that the term *papillary erosion* or *ulcer* should be used by preference to distinguish this variety from the follicular ulcer, which likewise exhibits a granular surface. The true pathological nature of this erosion was first recognized, we believe, by C. Mayer. Here we have not only the mucous membrane denuded of its epithelium, but the delicate basis substance of the papillæ is disintegrated, and the vascular loops in the papillæ are eroded. On a scarlet-red ground the eroded papillæ form deeper colored points, whence the blood issues on the slightest touch. In process of time the

eroded surface, through proliferation of the papillæ, acquires a granular appearance. When this hyperplastic process extends still further, fungous excrescences are produced—Kennedy's cock's-comb granulations being simply an exaggeration of the same process. By some pathologists it is maintained that these latter may lead to transition stages to the development of proper papillary growths—cauliflower growths. The seat of this erosion is mainly on the inner surface of the lips of the os uteri, but may also involve the cervical mucous membrane for some distance within the canal. The swollen tissue with its engorged vessels can only find room by bulging out through the os uteri; a process of eversion takes place, which is greatly facilitated by the laceration.

With this variety of erosion is frequently combined a third, the *follicular ulcer*. Here the peculiar appearance is due to the enlargement of the follicles embedded in the cervical mucous membrane. As Scanzoni* observes, "in consequence of the swelling of the cervical mucous membrane and of the considerably increased enlargement and new formation of the so-called ovula Nabothi, the lips of the os uteri are pressed apart, and between them the mucous membrane to a greater or less extent is rolled out, and so comes to view with its degenerated follicles."

Very instructive and suggestive are the following remarks of the illustrious writer we have just quoted:† "All these granular ulcers of the vaginal portion, as well the papillary as especially also the follicular, in a great number of cases undoubtedly stand in a causal connection with the puerperal changes of the uterus; for on comparing the anatomical relations of the cervical mucous membrane of an impregnated uterus with the results of the investigation of these granular ulcers, the similarity of these conditions must strike every unprejudiced observer, the excessive development of the follicles in an impregnated uterus especially being plainly conspicuous; and when we consider the frequency of the defective involution of the uterine parenchyma *in puerperio*, we must of necessity attain to the conclusion that also the hypertrophy of the cervical mucous membrane and its

* Vide Lehrbuch der Krankheiten der Weiblichen Sexual Organe, 4te Aufl. I, s. 233.

† Loc. cit., s. 235.

glandular apparatus, which has existed during pregnancy, may remain stationary and give rise to the affection now engaging our attention."

In many cases of so-called hypertrophic elongation of the cervix, we shall have a key to the proper comprehension of the true state of things if we observe that a laceration is the primary lesion. Dr. Barnes,* in speaking of this affection, with that accuracy of observation and power of philosophical analysis which so eminently characterizes him, says, in educing the order of events: "The first factor is arrested involution of the uterus. This entails endometritis, which in its turn leads to active hyperæmia and interstitial fibrin-effusions. Then a process of gradual continuous eversion and growth of the cervix takes place thus: the external tissues of the cervical portion are fixed to the bladder and the fundus vaginae, and, being comparatively free from liability to congestion and inflammation, maintain their original condition as to length and *relative* position. The mucous membrane, on the other hand, which lines the cavity of the cervix, is extremely vascular, is the primary seat of injury during labor, and of congestion and inflammation; it becomes swollen with gorged vessels, and serum and fibrin are poured out into its sub-mucous layers; hence there is increased villous growth, which can only find room by bulging out through the os tinæe."

As supplementary to the above, I would suggest that in many of these cases to which reference is made by Dr. Barnes, the first factor, is laceration of the cervix, which leads to the involution. Nay, I cannot help thinking that the illustrative figure which Dr. Barnes gives (fig. 112) is a case of bilateral laceration of the cervix. Furthermore, the elongation frequently is only *apparent*, and an amputation performed under the impression that an actual elongation of the infra-vaginal portion of the cervix exists, might lead to a penetration of the peritoneal cavity. To guard against such a mishap, the patient should be placed in the knee-elbow position, care being taken to see that there is no constriction around the waist, and the posterior wall of the vagina elevated by Sims' speculum. When the vagina is

* Vide *A Clinical History of the Medical and Surgical Diseases of Women*, by Robert Barnes, M.D., Lond., p. 545.

consequently distended, we are better able to appreciate the true length of the vaginal portion of the neck.

The diagnosis of chronic lacerations of the cervix is generally not difficult, if the method suggested by Dr. Emmet is practised. Thus, supposing we have to deal with a case of double laceration of the cervix—the patient is placed in the left lateral semi-prone position, Sims' speculum introduced and given to an assistant to hold, and the os uteri brought into view. The latter is the seat of a large erosion; there is inversion of the cervical mucous membrane, and the tissues are hypertrophied and congested. The relation between the portio vaginalis and the rest of the cervix and body, in a marked case, suggests the comparison made by Dr. Emmet between the top of a half grown mushroom and its stalk. The anterior lip is now seized with a tenaculum held in one hand, and the posterior lip with a tenaculum held in the other hand; the two flaps are then brought together, and the inverted portions rolled into the canal—it will then be found that the neck is but little larger than natural. When the laceration is one-sided, the erosion is not so extensive, nor is the eversion of the tissues so marked. Moreover, the opening of the os uteri is usually not symmetrically situated, being prolonged to one side. By the same manœuvre described above, in the case of a double laceration, the rolled out tissues are turned in and the divided surfaces brought together, when the cervix assumes its normal shape.

The surgical procedure instituted by Dr. Emmet for a double laceration is thus described by him in a paper entitled "*Surgery of the Cervix*," published in the *American Journal of Obstetrics*: "While the two lips are held, by the hand of an assistant, in contact, by means of tenacula, I slip a loop of wire around the neck with both ends passed through a canula to act as a tourniquet.* Before tightening the loop, however, a portion of the vaginal wall should be drawn up over the ring, so as to leave the flaps above perfectly free. This simple instrument is secured by bending each end of the wire back over the extremity of the canula. The flaps are then allowed to separate, and the

*Dr. Emmet has devised a special instrument for strangulating the neck in this operation. It is sold by the cutlers under the name, I believe, of "tourniquet for the neck of the womb."

whole surface is freely denuded by means of scissors, with the exception of a straight strip about a third of an inch in width, from before backward, which is to form the cervical canal. The neck is transfixed on a line with the bottom of the angle between the two sections by a large needle armed with a silk loop, and this is drawn through, with a silver wire attached. Two or three deep interrupted sutures are to be thus introduced on each side of the canal, and each twisted so as to bring the corresponding surfaces accurately together; they are then to be bent over flat to the surface, and cut off at half an inch in length. The space intended for the os should be about twice the width left between the respective sutures, so as to leave the opening of a sufficient size after the enlargement of the neck has been reduced. On freeing the loop, it will be found that no bleeding will occur; while this instrument, by controlling it during the operation, adds greatly to the facility of its performance. The patient should be kept in bed ten or fourteen days after the operation, and the sutures removed on the eighth day." In taking out the sutures, Dr. Emmet suggests that the suture nearest the vaginal junction should be withdrawn first, so that if union has not taken place, the other sutures may be left in situ for a time longer, and thus allow the gap, occasioned by the withdrawal of the first suture, to fill up by granulation. In a laceration confined to one side, the opposite surfaces are carefully denuded by scalpel or scissors, and brought into accurate apposition and secured by silver sutures. In this latter class of cases, the hypertrophy and congestion being usually not so great, and the blood-vessels consequently smaller in size, the tourniquet may frequently be dispensed with, especially where much induration of the tissue exists.

In a very interesting paper read before the New York County Medical Society, September 28th of this year,* Dr. Emmet described very graphically the circumstances under which he was led to recognize laceration of the neck of the womb, sustained during labor, as a potent cause of certain forms of uterine disease. The remedy, he says, then naturally suggested itself. His first operation was performed in November, 1862. He has

* Vide American Journal of Obstetrics, November, 1874.

since operated on about two hundred cases. Immediately after the reading of this paper, Dr. J. Marion Sims, in a few remarks, characterized by that exquisite felicity which lends such a charm to all that he says or writes, paid a graceful tribute to Dr. Emmet's acumen in recognizing this lesion, and suggesting the appropriate remedy. He fully concurred in the views advocated by Dr. Emmet, which were in entire harmony with his own observations and experience.

A very interesting case of double laceration of the cervix was operated on by Dr. Emmet at the Woman's Hospital in the spring of the year 1870. The patient was a German woman, about thirty-one or two years of age. She had borne several children. Prior to her admission into the Hospital, her health had been bad for several years. The appearance of the os, covered as it was by a large granular erosion, bleeding on the slightest touch, was such that an eminent physician of the city pronounced it a case of cauliflower excrescence. I had an opportunity of seeing the neck of the uterus several months after the operation, and was astonished to find it restored to a healthy appearance and nearly normal size. Her general health, too, had undergone a marked improvement.

The following case from my private practice is interesting on several accounts, and I make no apology for giving a rather full history of it:

Mrs. J. McK., age 25, consulted me June 26th, 1871, and gave the following history of herself: Has been married five or six years; gave birth to a child about a year after marriage; has not been pregnant since. Has not been strong since the birth of her child, but for the past year or more has been growing worse—complaining principally of lumbar pain, burning sensation in the pelvis—these symptoms aggravated by locomotion—quite profuse leucorrhœal discharge; also general prostration. Has suffered the past year with an itching eruption on her breast, arms, &c., which annoys her greatly, and disturbs her sleep. Six months ago, sought the advice of a physician of this city, who told her she had ulceration of the mouth of the womb. He applied caustics locally, from time to time, for several months.

Status præsens.—Patient is a woman of large frame and strongly built, but is pale and anæmic. The eruption she complains of is a form of psoriasis. The os uteri is the seat of a

large granular erosion, and the vaginal portion of the neck is apparently twice the natural size. There is marked eversion of the inner surface of the lips of the os uteri. By the manœuvre explained above, the rolled out tissues were turned in, and it was easy to demonstrate the existence of a fissure on the left side of the os extending to the vaginal junction. The diseased tissues are much indurated; probably a too free use of the nitrate of silver has helped to bring this about. Before operating, I thought it judicious to use local applications of Churchill's tincture of iodine to the indurated tissues of the cervix and to the mucous membrane lining the cervical canal and body of the uterus, and to enjoin the use of copious hot water vaginal injections. This treatment was continued for several months to the manifest improvement of the patient's general and local condition. The psoriasis was cured by the internal use of arsenic and local application of green soap and tar ointment.

On the 6th of March, 1872, before which time the patient was not ready for the operation for domestic reasons, I proceeded to close the fissure, assisted by Dr. O'Byrne, then house surgeon of the Woman's Hospital, now of Poughkeepsie, and Dr. B. Thompson of this city. Dr. Thompson administered the ether. The parts being freely exposed by Sims' speculum, the indurated tissue was freely cut away with the scissors. The denuded surfaces were then brought together, and secured by three silver sutures.

March 14th. Sutures removed, and union found to be perfect. The patient was directed to keep her bed for a week or ten days longer, the only treatment instituted being hot water injections into the vagina carefully given by a nurse.

April 10th. Patient called at my office. The neck of the uterus when exposed to view by Sims' speculum has a natural appearance, having now a conoidal shape. General health much improved; no longer suffers from the lumbar pain or leucorrhœa.

June 6th, 1873. Mrs. McK. called to inform me that she had not menstruated for several months and thought it likely that she was pregnant. Examination per vaginam convinced me that her conjecture was correct, as the size of the womb and the condition of the tissues of the neck indicated that she was about three months advanced in pregnancy.

December 23rd. Was summoned to Mrs. McK., who thought labor had set in. Found uterine contractions recurring at short intervals, but apparently with but little effect in dilating the os uteri; in fact there was considerable rigidity of the tissues of the os. In order to arrest uterine action until the tissues were softened, I ordered enemata of opium per rectum repeated ac-

cording to the urgency of the symptoms; and to hasten the process of softening, I directed the copious use of hot water vaginal injections. I examined the os every day, with two exceptions, until the 31st, when labor began in earnest, and found that the tissues softened down regularly and progressively. Labor proceeded normally and the patient was delivered of a fine boy.

September 22nd, 1874. Mrs. McK. consulted me for neuralgia of the fifth pair, which is, I think, of malarial origin. Her health is good with this exception, and has been so ever since the operation.

In this case not only was my patient cured of her uterine affection and restored to excellent general health, by this operation, but, at the same time, relieved of her sterility. For I think this may be appropriately placed in the category of those cases which Dr. Sims so happily terms "acquired sterility." This success was the more gratifying as the patient longed above all things for the great privilege of becoming a mother again.

ART. II.—*Rupture of the Uterus. New Symptom.* By ROBERT J. PRESTON, M.D., Abingdon, Va.

(Read at the Fifth Annual Session of the Medical Society of Virginia, October 14th, 1874, and requested for publication by the Editor.)

Rupture of the uterus, it has been justly said, is one of the gravest accidents which can occur during the progress of labor. The following fatal case in my practice is now reported for the purpose of calling attention to a new symptom, not generally mentioned in obstetrical works, and which was not recognized by me at the time, and, consequently, its significance was not appreciated—else the life of my patient might probably have been saved.

M. W., a mulatto, aged 26 years, was taken in labor with her third child, *November 4th, 1872*. There was a slight watery discharge at 10 A. M. Being called at 3 P. M., I found the patient complaining of flying pains in the back, which began some hours previously, and had gradually increased in severity. On vaginal examination, the os was found but slightly dilated, head presented in the first position, and labor hardly commenced. I prescribed morphine sulphatis, gr. $\frac{1}{4}$, to be repeated

after a proper interval, if necessary, and left with instructions to send for me as soon as labor pains occurred.

November 5th.—Called at 4 A. M.; labor but slightly advanced, though the pains were somewhat increased in frequency and severity, and the os was dilated to the size of a quarter of a dollar. Patient had slept some. During the examination at this time, a small tumor, of a cushion-like soft feel, was discovered just below the utero-vaginal junction occupying the right latero-posterior aspect of the vagina. Some suspicion of pelvic hæmatocele was felt at the time; but the swelling being insufficient to interfere with the progress of labor, the pelvis large and capacious, and the previous labors having been short and easy, no special attention was given to it. I remained till 6 A. M., and observed that the os, which was soft and dilatable, slowly responded to the feeble pains. I directed some aromatic teas (spice and pepper) to be given and continued, with nourishment.

8 A. M.—Patient in much the same condition—pains feeble and infrequent, head slowly advancing into the hollow of the sacrum, os dilated to the size of a Mexican dollar, and very dilatable; vaginal swelling disappeared. Presuming that the pains were so feeble and ineffectual on account of inertia of the uterus, I administered ergotine, gr. $\frac{1}{4}$ th, which was repeated at 9 A. M., but without producing any apparent effect upon the frequency or strength of the pains. The head advanced very slowly, and as the patient became restless and fatigued, coffee and nourishment were given at intervals. The beat of the foetal heart was clear and distinct, and no obstacle to the easy progress of labor could be detected, except the want of strength in the uterine pains.

At 11 A. M., the os was almost fully dilated, head in the hollow of the sacrum. I determined to use forceps, and accordingly dispatched a messenger to town (one mile) for them and for consultation. There was nothing in the pulse or in the condition of the patient indicative of exhaustion, except restlessness and fatigue; so I encouraged her by saying the labor would soon be ended, gave more nourishment, and retired to an adjoining room to read the morning's papers.

Nothing unusual transpired until near 12 o'clock, when I was startled by the sudden cry of pain. On hastening to the bedside, expecting to find that the child's head had passed over the perineum, much to my horror I found my patient with the most alarming symptoms of shock—pulse faint and small, countenance pinched and pallid, and with severe lancinating pain in the right side of the abdomen. On vaginal examination, the

child's head had receded beyond the reach of my finger, and some blood was discovered in the vagina. I now recognized that the terrible crisis of a ruptured uterus was upon me, and so stated to my patient and her friends. The increasing pallor of countenance and feebleness of pulse admonished me that my patient, just before a buoyant and robust female, was now rapidly sinking into the jaws of death. No anæsthetic was at hand; but while the nurse administered stimulants freely, I proceeded to perform version as rapidly as possible. Passing my hand and arm into the vagina, and through a large rent into the abdominal cavity, among the intestines, with some difficulty, I secured the right foot and leg of the child and brought them down. Considerable delay and trouble were here encountered on account of the child's left hip and leg hanging at the superior strait, until finally I returned the limb, which had been brought down, into the cavity, when I secured both feet, brought them down, and in a short while succeeded in delivering the body as far up as the shoulders. These having caught at the superior strait, presented another difficulty, while, from the labor of the operation thus far, together with the mental strain and anxiety consequent upon a crisis so terrible, I was much fatigued. At this juncture, Dr. E. M. Campbell arrived with instruments, and rendered very efficient and welcome aid and counsel. After much toiling, the arms of the child were delivered, and we proceeded to deliver the head—brandy and camphor being freely given the patient, as her strength was sinking rapidly. The head was large, and before we could succeed in entirely extricating the child, death came and stopped us in this terrible and unfinished operation.

We were permitted by the friends to open the abdomen for the purpose of completing delivery. The uterus was found to be torn vertically for about five inches, along its posterior wall extending into the vagina. The placenta and membranes were detached and lying in the left side of the abdominal cavity, in a large amount of blood, liquid, &c.; the fundus of the uterus, firmly contracted, was lying upon the opposite side. To the naked eye, no signs of disease in the uterine tissues were observable. I regret that we could not carry the examination further, so as to determine more accurately the condition of all the parts.

In searching medical literature afterwards upon this subject, I found in the *American Journal of Obstetrics*, May, 1869, p. 144, a *New Symptom of Rupture of the Uterus*, described as a voluminous tumor just above the pelvis, resembling the dis-

tended bladder, but more clearly defined, appearing to be filled with a gelatinous mass." This was observed by M. Jolly in a case at the Maternité, in Paris, in 1867, though he observed nothing else indicating rupture or perforation of the uterus—both of which probably existed at the time, as after the performance of version and the extraction of a dead child these lesions became manifest. Autopsy revealed a small circular perforation of the left side of the neck, just below the os internum; also a larger rupture of the anterior wall of the neck at the same height, having a transverse direction, 5 or 6 centimetres in length, opening into a large sub-peritoneal cavity which contained black clots, and corresponded to the supra-pubic tumor noticed during life. M. Jolly reports one or two cases illustrative of this new symptom; and Hecker simultaneously confirms its value, and says it may obtain either in the hypogastric region, in the groin, or in the vagina.

The usual symptoms as given by authors are profound shock, hemorrhage, sudden cessation of uterine contractions, severe lancinating pain, recession of the presenting part, &c. Of these, sudden cessation of uterine contractions occurring during labor is considered by modern authorities as almost pathognomonic, and is the symptom above all others looked for in these cases. But continuance of contractions in a ruptured uterus does sometimes obtain, as well authenticated cases prove. When such is the case, and the other symptoms are wanting or not marked, the diagnosis is necessarily obscure, which, by giving the obstetrician a false sense of security, may delay him in the employment of the means to ward off a fatal issue. "It is no rare occurrence," says Robert Collin, "that the contractions continue in cases of slight rupture." According to Ramsbottom, "if an extensive rupture occurs, it is probable that the contractions will cease immediately, but that they will continue for some time if the rupture be a small one."

How, then, are we to diagnose these slight ruptures or perforations? It is in these cases, which, unusual as they may seem, are nevertheless of pretty frequent occurrence, that this new symptom—this sub-peritoneal tumor appearing in the hypogastric region, in the groin, or in the vagina—becomes unquestionably one of great value, as indicative of this initiatory lesion or

perforation, and as premonitory of an impending crisis more terrible; but which may be averted by the immediate and timely extraction of the child and its appendages. In the case above reported, the swelling in the vagina, discovered some eight hours before the fatal issue, was undoubtedly a tumor of the character described—a sub-peritoneal effusion from slight rupture or perforation of the uterine tissue; and had its significance been appreciated by me at that time, and the immediate extraction of the foetus and its appendages been procured, the final issue might probably have been different. It is useless to say that, under the circumstances described, no ergot, even tentatively, should have been given.

The question arises, too, *after* the final rupture and escape of the child into the abdominal cavity, in the case I have just reported, whether abdominal section would not have been the better operation? Had the operation have been performed at once, I think that the life of the child might have been saved, and that the mother would have been given an equal, if not a better chance of escape from death, by the opportunity which would then have been presented for washing out the abdominal cavity and securing the bleeding vessels at once. But with the weight of authority against such a procedure, it would be difficult indeed to incur such a weighty responsibility without consultation.

In the "Histories of Three Cases of Rupture of the Uterus," read by Dr. John S. Parry before the Philadelphia Obstetrical Society, April 3d, 1873,* attention is called to an extremely interesting point in one case, viz: "the appearance of a fluctuating tumor over the pubis before the death of the patient;" and the writer continues, "*so far as we know, this has never been noticed in connection with rupture of the uterus.*" In this case the supra-pubic tumor was noticed some hours before death, and some hours before the application of forceps (the continuance of uterine contractions being kept up), but its significance was not appreciated until post-mortem. The delivery by forceps doubtless prevented a complete rupture; but the patient died soon afterwards of peritonitis.

This new symptom having been demonstrated by M. Jolly in

* *Amer. Jour. of Obstet.*, No. 22, p. 188.

1857, and confirmed by other observers, will doubtless be noticed more frequently in the future; and when recognized and appreciated fully by the profession, may, it is hoped, by bringing about timely interference, serve to ward off the fearful accident of uterine rupture.

ART. III.—*Strychnia versus Opium*. By A. W. FONTAINE, M.D., New Canton, Buckingham county, Va.

Some time in August, 1874, I was called in haste to see a little negro child just three days old, to whom, the messenger reported, had been given three or four drops of laudanum the night before. I arrived about 3 P. M. The parents corroborated the statement of the messenger. The condition of the child (then 26 hours after the dose was taken) fully verified the statement. It lay in a profound stupor, with cold extremities, slow pulse and respiration, occasionally sighing or moaning. At intervals of a minute or so it would suspend breathing entirely for half a minute at a time, and resume it with a hasty jerking and tremulous inspiration.

Treatment.—By dint of rolling, tossing, and slapping, fanning, and sprinkling with cold water, it was so far aroused in 15 or 20 minutes, as to swallow something. Then I dissolved $\frac{1}{4}$ gr. sulphate of strychnia in eight teaspoonfuls of water, and commenced to give it from 15 to 30 drops about every 15 minutes. Sinapisms, made from a box of strong, fresh mustard, were applied to the feet and ankles, hand and wrists, and renewed again and again. Having some freshly roasted and ground coffee prepared, I put about $\frac{1}{2}$ oz. of it in a pop-bottle, and then nearly filled the bottle with hot water. This was placed loosely corked in a pot of boiling water and thus boiled for ten minutes. The strong coffee thus prepared was given as often and fast as possible, between the doses of strychnia. The tossing, slapping, rolling, fanning, and sprinkling were not suspended a moment longer than to give the medicine and coffee. My Faradic machine was broken, and several miles distant, or I should have had much less trouble in "agitating the subject."

However, in less than hours, and after the first half of the

strychnia had been given, there were signs of improvement; and in three hours from the first dose the child was so far recovered as to draw a swallow or two from the mother's breast. This it was encouraged to do at intervals (after a little shaking each time), and the intervals between the doses of medicine and coffee were gradually lengthened until finally stopped after it had taken about six-eighths of one-fourth of a grain of strychnia.

No spasmodic effects were perceptible from the use of the medicine. And the mustard, though applied undiluted and repeated about three times in as many hours, did not vesicate or injure the skin at all. It was barely reddened towards the last.

The laudanum had been given the child to "quiet him." The parents in their ignorance did not apprehend any danger until the child had slept 24 hours.

Considering the extreme youth of the child (3 days old), the natural intolerance of opium in the negro race—the large dose given—and the length of time elapsing before assistance was procured, I think the result worth recording.

ART. IV.—*The Residence and Agencies of the Passions.* By GEORGE BAYLES, M.D., New York—Continued from p. 489.

The physiological agencies of the passions have already been incidentally considered in that part of this lecture which attempted to define the true home of the passions. We may, therefore, pass to the consideration of the agencies of the passions pathologically.

It probably is not open to question that disease results from disturbance of the prescribed and normal action of the nervous system, especially of irregular and abnormal action of the great sympathetic which presides over all operations of a vital character. In all ages physicians have regarded the passions among the predisposing, determining, or aggravating causes of the majority of diseases, especially diseases prone to chronicity. To effect a gradual and probably insidious alteration in the structural integrity and functional economy of a part or organ, the impressions made upon the nerves of sense must be uncommonly pronounced, often repeated, and unduly protracted. Impres-

sions having these several characteristics are at once abnormal and unwholesome. It is to these impressions, exaggerated in quantity and quality, that chronic diseases owe their origin in large measure. Not one of the passions, if held in check and restrained in their range, can justly be considered unnatural or pernicious. It is the overflow of the emotional part of man's soul, with nothing ready and efficient to check and force it back, that works the moral and physical mischief. The prime passion is love. The organs of memory and imagination are so prominently excited during the activity of this omnipotent passion, that it is reasonable to regard it as a compound passion. It is undoubtedly compound as regards the united action of those elements of intellectual powers, memory and imagination, and is presumably compound when other faculties are found involved, as is usually the case. But in lending their aid to the grand manifestation of the passion, *love*, memory and imagination lose their precision and normal reliability. Each becomes erratic and sometimes absolutely vitiated. These in turn pervert the will, and, for the time being, man is an insane and irresponsible being. The exactions of the passion, love, under the conditions which have neutralized and subordinated the will, are wonderful beyond comprehension. Love, if not confined within the bounds of reason, turns to a kind of mania. Melancholy is a passion that freights the mind with gloom, and the body with sour and caustic humors. It is not an uncommon passion, but not nearly so common as love. There is a variety of melancholy that verges upon dementia, and is often brought to the notice of the physician, being characterized by inveterate sadness, love of solitude, absolute inaction, and a belief in a host of evils that are purely imaginary and unreal. All ills and physical difficulties, under such circumstances, are inordinately exaggerated, no pain that does not produce the torment of fire seven times heated burning its way into the vitals; no disappointment that is not a deprivation, compared with which every conceivable loss of estate is a simple inconvenience. This is a horrible passion to be loosened from the restraints of reason, and released from the leashes of a sound and controlling will. This form of melancholy is a species of aberration so specific that it should be classed among the diseases, and receive the name of *lycanthropy*

or *lypemanía*. We ought not, perhaps, to include this virulent cast of mind, this melancholy, in the list of the passions; for it is past the bounds of emotional phenomena proper, and becomes pure disease, such as might have been caused by other influences than emotional depravity. True, passionate melancholy affects the spirits morbidly and often profoundly, and instances have occurred where it became as persistent as the variety which has become positive disease, akin to insanity. It is never a light and trifling disorder, and is only easily dispelled in its first or earliest manifestations. Very few escape wholly the visitation of this form of melancholy, and, doubtless, those who take the most practical and philosophic views of life are the most subject to it. Our poets and authors are more remarkable sufferers from it, judging from their writings. It arises chiefly from a severe sensorious reasoning, and not from the discomforts produced by the real ills of life. On the other hand, there is a kind of passional melancholy that comes wholly of hardships and disappointments in the allotments of everyday life. Reverses of fortune and crosses of the love passion form the staple causes of this variety of passional melancholy, while thousands of other less important causes, making up the sum of human ills, strike the sensitive soul with melancholy. How idle it would be to attempt to give illustrations of such a well-known form of emotional melancholy! When blasted love or ruined fortune are the exciting causes of this melancholy, the trouble may go from bad to worse, entering into other forms of emotional activity, produce dire physical consequences, and end with death. The rapidity of these changes are often startling. Our vigilance is sometimes betrayed and deluded in cases of this kind under our charge. We seek for organic or functional causes for the deep mental and vital depression of our patient, and not finding them, have no excuse if we do not probe the soul's centre and discover the mental and emotional causes. Secrecy on the part of the patient is the rule. Ingenuity of investigation on the part of the physician is only the more urgently demanded. Certain physical signs are not wanting that have a tell-tale character, if you know how to observe them. These betraying signs are only exhibited to the skillful physician who has suspected the truth and knows how and when to touch the most sensitive

chord of the soul, rendered indeed super-sensitive by recent disaster. The patient who cannot bear this anguish of emotional melancholy and the physical disturbances that have been produced thereby, will resort to suicide as a ready means of escape. You see in the act of suicide a total disregard of the instinct of self-preservation, which in health is such a powerful instinct, and can thus form some idea of the potency of the perturbing influences which sweep it away. Psychologists have located the instinct of self-preservation in the brain so accurately that we are justified in believing that a suicide has suffered a lesion of the organ of this faculty, brought on by certain general changes in the economy. Anger, hate, and its concomitant passion, resentment, will produce just such structural lesions, and open the way for wild, unreasoning manifestations of emotional excitement. We need not draw the picture of anger in its fury, hate in its ill-concealed malignity, and resentment in its taciturn scheming. The exaggeration and recurrence of these violent emotions do most certainly play a cruelly vicious part in disturbing the harmony of visceral actions, and also establishes incurable lesions in the brain substance that puts the emotional nature beyond the pale of return to normal conditions. Voluntary and practised eccentricity of manner will, in time, induce an involuntary and hopelessly permanent eccentricity. We can indulge in nothing to excess without unwittingly casting anchor in the slough which it should be our life-study to avoid. Though revenge has often been described as a kind of pleasure, it is the analogue of the pleasure of the debauch, and its sting surely follows. The analogy holds good in this case, as it concerns also the rapid change in the organs and the incurable states that are often induced. You do not need a hint of the kind of organic changes referred to, but I would venture to affirm that pulmonary and cerebral congestions are the chief in point of frequency and danger. All violent emotional excitements must invariably be followed by local organic engorgements; and repeating these engorgements in the highly irascible or love-agitated subject, we soon get the relaxed fibre with permanent engorgement or so-called congestion. If a given passion, in repeatedly active operation centres its physical manifestations in any one organ or part, it is obvious that super-excitation of the

organic vitality of that organ or part will induce relaxation and paralysis. If the passion is a compound one diffused in its seat of physical activity the result will be the same only more widely spread.

The reaction is from the organs of distant manifestation to the organs of origin, or more properly speaking the organs first in the order of procession upon physical manifestations. These are in the brain, and with the same train of integral and interstitial disturbances will result similar lesions alike irreparable as in the other organs. The nerves of communication between the two seats of physical activity, cannot remain sound and serviceable long after impairment of the terminal parts out of which they run, and into which they are received. Their partial or complete paralysis is the result. With any degree of inefficiency of these nerves of communication, is it not easy to see how certainly the parts to which they are attached become diseased? If occasional and temporary fits of passional excitement have for their effect the weakening of the power of these nerves, is it not apparent that the organs to which they give correspondence and mutual activity, will inevitably become diseased? A diminution of the power of the nerves will compromise the function and eventually the structural perfection of all the organs or parts with which they communicate. With lost or impaired nerve-communication a general withering takes place, such as we see in the prematurely old. Cephalic excitement of any kind scarcely ever leaves the stomach and liver free from participation, not necessarily in the excitement, but in the effects of the excitement. If the excitement has not been immoderate, and has been pleasurable, the effect upon these organs is usually of a beneficial character, a sort of gentle stimulant. If the excitement has been painfully evoked, and is too prolonged or too violent, the effects upon stomach and liver are to suspend the functions of those organs, to reverse the current of their secretions, and to poison the blood. Dyspepsia and icterus are results of suspensions or reversal of function which may be noted as typical examples. Any form whatever of strong emotional excitement is sure to interfere in some way with digestion, and is inimical to a healthy performance of that process if too frequently recurrent, too intense, or too lasting. Absolute cephalic tranquility, even bor-

dering upon the repose of sleep, is the most conducive to thorough and wholesome digestion. The siesta is the familiar form of reaching this end. Appetite is commonly influenced by the same states of cerebral disquiet; and whether replete with food, or requiring it, the digestive organs respond to all emotional disturbances with unfailing fidelity. The more violent the cerebral impression, the more pronounced the visceral sympathy, especially of the stomach. We know that the disturbances due to concussion of the brain will include retching and vomiting on the part of the stomach. Grief and fright will so seriously impair the functions of stomach, liver, and alimentary canal, as to produce an immediate fit of indigestion, and hence dyspepsia. Moral suffering will almost certainly cause dyspepsia. Emigrants, exiled prisoners, soldiers on foreign service, and missionaries in distant lands, will give, among the aggregate of souls, the largest percentage of dyspeptics, the largest percentage of suicides, the largest percentage of consumptives, and the largest percentage of the victims of cancer. What form and variety of organic and structural lesions cannot arise from perverted digestion it would be difficult to say. What form or variety of emotional excitement, if habitual, unrestrained and prolonged, will not create dyspepsia would likewise be difficult to say. The pet emotion waxes into the vigorous stirring passion, the passion degenerates into a slavish insatiate appetite, this false appetite usurps the healthful longings and requirements of the organism. Disease immediately supervenes, and after torments of body and mind, such as no man can describe, the body resigns its life and the troubled spirit seeks a new sphere.

A psychological phenomenon of more than common interest is the contagiousness of passion, whether good or bad. All psychological states are prone to reproduce themselves by reflection, beginning with the smiling of the infant which calls up a responsive smile on the mother's part. Sighing, yawning, and laughter are as provocative of imitation as the face placed before the mirror. Contemplate a portrait, and unconsciously your features will assume something of the same expression. It is not too much to say that the mind catches some ray of the passing thought of the one whose face gives the initial expression. If the expression be good and pure, like the serene features of

a Madonna, or that of a dignified and benevolent Quakeress, the bias is towards good thoughts, and the cast of countenance that betokens such thoughts. If the expression is depraved and vulgar, we cannot escape a medicum of contamination of thought, and our faces will reveal it. It is irresistible and natural, and if it were not equal on both sides, we should say it was unfortunate. Our reading has supplied us with numberless instances of the effect of startling crimes upon a community. Imitators in every line of criminality have been numerous. We often hear of epidemics of suicide, or of murder by violence, or of murder by poisoning, or by infanticide. It is a fact that the spirit of emulation does not falter upon the brink of a crime in times of morbid excitement, but pursues the example in blind obedience to the law of passional contagion. War stimulates hostilities when peace before reigned supreme. War in one country makes the war-spirit rampant in other countries. Lust is set in motion by a prurient play, straightway gross and obscene plays begin to abound, the public taste is poisoned. Neuropathic states, at once singular and unaccountable, have the same tendency to spread by contagion. In mediæval times nothing was so common as to have whole communities under the spell of some strange superstition or hideous fanaticism, which would cause widespread disturbance, curiosity and alarm. This has often been observed in recent years. The contagion of religious devoteecism is as manifest in the vagaries of the modern camp-meeting, as in the ecstasies of the dancing and howling Dervishes. The passion for fashion in dress is a typical instance of the contagiousness of the psychological states. Taste and convenience do not preside over and direct these arbitrary changes of attire season after season, and many times during the season. A recognized leadership is established in the departments of fashion in dress, and immediately at all hazards, at any expense, the dress is replaced by the new thing, or the old is fashioned to conform, as nearly as possible, to the new style. Sometimes the mandates of fashion are simply ridiculous and senseless, but they must be, and are obeyed, because some ruling spirit has so ordained. We have less cause to animalvert upon the growing passion for æsthetic sports and exercises both public and private. In an age of great intellectual growth, this is doubtless a good

thing, and something to be encouraged. How to put a wholesome restraint upon the bad passions engendered by them is something for us to study. It is sad to think that the sports of the fields and water give birth to much unprofitable and hurtful passion, such as envy, hatred, revenge, and the passion for unlawful gain. If we can foster the manly graces of our times, and at the same time eliminate the features of discontent with honest failure and the pernicious betting of money, (which practice is not disdained by the fair sex), we shall have done a grand service to the world. Temperance and moderation in all things is the secret of physical happiness and mental peace.

We cannot have at one and the same time the raging passion and the comfortable body, and surely not the peaceful soul. Hallucinations, ecstasies, ennui, hysterical and cataleptic states, illusions and delusions, are all leading departments of multiform emotional and passional phenomena of an aberational kind. As concerns treatment, we possess hardly any save moral remedies. The success attending the employment of these however shows well the purely nervous character of these singular and baneful affections. A scientific writer says, "nor is it in our medical schools that young men, who intend to practice the healing art, can learn to diagnose and treat those maladies wherein the soul wrecks the body. This is a vocation which requires profound personal study and observation, and wherein the student will do well to draw on a source too much overlooked in our times, viz: those old authors who treat questions of this kind. The young physician will find equal profit and delight in studying those profound connoisseurs of the human mind, La Chambre, Stahl, Pinel, Hoffman, Bichat, Tissot, Richerand, Alibert, Georget. From them the student will not only learn how to judge wisely of the passions of others, and the best means of treating them, but will also get sage counsels for the government of his own. Then he will see that there is nowhere perfect health save when the passions are well-regulated, harmonized, and equipoised, and that moral temperance is as indispensable to a calm and tranquil life as physiological temperance. He will see that without going the lengths of stoicism in the which there is more pride than wisdom, more ostentation than virtue, the noblest and most desirable state for the mind and body alike is equidistant

from all extremes of passions, i. e., situated in the golden mean. And this conviction that regular living and moderation in material as in emotional life is the secret of serenity and security, he will strive to spread abroad as being the most useful precept of the medical art."

LECTURE II—PART II.

Our social relations are as much abused by the insubordination of our emotional natures as they are sweetened by their correct and laudable exercise. All the romance and poetry of life is realized by the sportive and unconventional play of the emotions, and the judicious exercise of the passions. To lay aside the emotions in the pursuit of the hard practicalities of life, is to assume a state of asceticism—a bare, blank, comfortless existence, often, however, voluntarily assumed by the ultra religious under the influence of superstitious prejudices.

The passive form of emotional and passionial liberty is well expressed in the adage "Live and let live." It is simply to enjoy the good things of life in a way that will not render them surfeiting and tiresome. It is to be able to soothe pain into oblivion by accepting with frank cordiality the modest pleasures of everyday existence, and putting our neighbor in the way to do the same. What blindness must be ours that fails to discern a ray of sunshine in every occurrence—something that in mercy has been thrown in to alleviate inevitable suffering! What numbness must be ours that experiences no thrill of joy under the inspiration of music, poetry, agreeable and instructive conversation, the ride, the walk, the landscape, the crowded avenue, the genial home scenes, the eager, restless, kaleidoscopic public assembly, and indeed every honest display of pure nature, or man's human nature! The passive emotions are our true store-houses of happiness in this commonplace prosaic existence of ours. Without them, the dungeon or the cell of the recluse would present less that is cheerless and horrible.

As we cannot dispense with the benefits of the proper exercise of the emotions, neither can we afford to allow the emotions to run into ungovernable passion, and cheat us of our happiness, in a rage for ecstasies. This unfortunately is the tendency of modern civilization. It was a tendency so strongly pronounced

in ancient times, of commensurate civilization, that positive social and political ruin resulted. Christianity, however, is the saving grace, the restraining influence which we trust will preserve the leaven of common sense and purity in the new times. Nothing else can; for in times past the many systems of philosophy, the most uncompromising and rigid in their adherence to the views and practices that beget peace of mind and soundness of body, had no firm or extensive hold upon the popular mind, neither were they effectual in themselves. These prudish or conceited systems benefited a certain enlightened few, who could derive satisfaction, if not happiness, in combatting the tastes and practices of the multitude. The multitude indeed had gone far astray, and any outside current or channel of escape was at best a present comfort, if not an assurance of final and external safety.

Christianity, strong in itself, as built upon a surer foundation than mere grandeur of human æsthetic conceptions, has many allies to reinforce its social and political powers. These allies, it is true, were begotten of Christianity under the influence of its peace-preserving principles, and may almost be styled attributes of Christianity. They are like sturdy sons, ready to dare and to die, if need be, in the father's cause, which cause is Truth. These useful allies are the many branches of science, almost distinct, yet having a correlative purpose. The branch which we consider ours is perhaps the one most in affinity with the objects and interests of practical Christianity. It redeems the fallen who have been overwhelmed by mental and physical disaster just as the beatitudes of the Christian gospel redeem the fallen sin-sick soul. Often one must precede the other to effect the redemption. Sometimes Christian grace must precede the effectual offices of the physician, and sometimes the physician must have effected some radical change of a physical kind to fit the man for the operations of religious principles. There is a mutual action and an interdependence between the principles and practice of medicine and the evolution and development of pure piety. As medical men, then, we should be ever on the alert to improve our opportunities, not only of getting good, but of doing good.

The pathology of the passions is a necessary study, which

must on no account be evaded. It is now *the active form of passionnal influence in the social relations* that we will endeavor to review, for this is our peculiar and rightful province. It will be for you to judge how much that is known to you shall be known by the world, or by that portion of the world in which your presence and practice is a power.

The moral forces that concern and operate upon social states are so mutually involved and interlocked, that they cease, during occasions of their most active exercise, to be describable under any one simple head. Love in urgent operation is likely to be compromised by ambition, vanity, pride, avarice, personal hate (if a rival suitor is in the field), and even lust. All these passions, if assuming the leading position, may be characterized and varnished by a gloss of love. But we may arrive at partial and sufficient accuracy in our desire to estimate the powers of the passions, by singling out one which may have typical features in its own unalloyed individuality, and by studying that. Such an one will undoubtedly be the emotional and passionnal moral force generically termed *love*. To find love uncompounded, as before stated, would be a marvel, but we will suppose it.

(Concluded in next issue).

ART. V.—*Arizona Territory as a Health Resort for Consumptives.* By B. G. McPHAIL, Post Surgeon U. S. A., Camp Apache, Arizona Territory.

Thinking it will be of interest and value to your professional readers, and through them to the many sufferers under their care, I desire to call their attention to the beneficial influence of the climate of this Territory on diseases of the respiratory organs. I say *this* Territory, but more properly should include New Mexico and Southern California, embracing that vast area extending from the Rio Grande to the Pacific, and from the 35th parallel to the Mexican border—since the climate and general topographical characteristics are similar. The country consists of alternate valleys, tablelands, and mountains; and any altitude desirable may be obtained, from the sea level to an elevation of over ten thousand feet, with a corresponding variety of temperature. I do not propose an essay on climatic influence,

nor to advance any new theory, but briefly and in a desultory manner to state a few facts that may be of value in directing the attention of sufferers to what I consider the finest climate in the United States for pulmonary diseases.

Last November I arrived at Yuma—formerly called Arizona City—thence proceeded to Tucson, where I spent a week; from thence proceeded to Camp Grant, a four-company U. S. military post, where I spent the winter. I was out in the mountains with a large scouting party during most of the spring, and since May have been on duty here—a three-company post—as *post surgeon*. In addition to the troops, I have been thrown with many native Mexicans and more than twenty-five hundred native Apache Indians, on the San Carlos and White Mountain reservations; and during all this period I have not seen a case of consumption amongst the natives, and no case in the white population that had not been arrested, many of which were apparently cured. I have not seen a case of pneumonia or other serious disease of the respiratory organs. I have met soldiers and officers who were suffering from almost every form of lung diseases on their arrival in the Territory: phthisis in its different forms—in several, far advanced—bronchitis, asthma, impaired functions from old pneumonias, pleurisies, &c., and in *every* case marked improvement has followed after a short residence here. Many cases seem to be *cured*—others benefited and held in abeyance.

Yuma is located on the Colorado river a hundred and fifty miles above its mouth, and but a few feet above tide-water. It is by no means in an attractive section of country, but the climate during the winter months is delightful. In December and January last, the monthly mean was 55° —highest at 2 P. M., 72° —lowest at 7 A. M., 38° —with ten rainy days during these months. Annual rain fall, *five inches*. Being near an extensive desert, the air is very dry, and evaporation is rapid. The summers are hot, and I should think enervating; but it is stated on good authority* that a temperature of 100° F. may exist at Ft. Yuma for weeks in succession, and there will be no additional cases of sickness in consequence.

The following letter, received a short time since, explains

* Asst-Surg. J. V. Lauderdale, U. S. A.

itself, and, coming from an experienced and trustworthy physician, is worthy of the highest consideration:

FORT YUMA, July 3rd, 1874.

Dear Sir,—The statement which you saw in the Tucson paper, that I would before long publish an article on the climate of Arizona is not strictly correct. I have been engaged during the winter in collecting a few facts on the climate, and particularly in reference to the treatment of tubercular phthisis, for the benefit of Dr. Dennison, of Denver, Colorado, who has been for the past two years engaged in collecting data on the subject of climate, with a view of publishing a work during the coming fall or winter.

* * * * *

My own experience is of course very limited with regard to this particular disease, as in an extensive practice in this vicinity of two years, I have met with but *three* cases of the disease. Two of these I found amongst the enlisted men, and one amongst the native Mexican population. The two former are now on duty nearly well, and the latter succumbed—owing, I am satisfied, to want of proper hygienic care and attention, and also to the disease being complicated with hereditary syphilis. I have not seen a single case among the native Indians in this vicinity, and, with the exception of the one above alluded to, not a case amongst the Mexican population. My own conviction is, that the belt of country lying between 32° and 35°, and extending from the Pacific coast to the Valley of the Rio Grande, is best adapted of any other portion of the continent for the treatment of tubercular phthisis, and that the completion of the projected Texas Pacific R. R. will make it *the* resort for this class of invalids.

My own views with regard to the treatment of the disease are well expressed in the *Medical Record* of June 1st, 1874, page 296, and are briefly as follows:

1st. An air of such a nature that it can be breathed for the greater part of the 24 hours; 2nd. Sun light; 3rd. An atmosphere destitute of dust; 4th. Exercise without fatigue, and in addition a *low* altitude.

All these may be obtained almost anywhere in the belt of country I have embraced.

* * * * *

Very truly, &c.,

GEO. S. ROSE,
Asst. Surg. U. S. A.

Tucson, the capital of the Territory, is a town of about

3,500 inhabitants, and is located on a pleasant plain, 2,000 feet above the sea, with lofty mountains in close proximity. It is several degrees colder in winter and not so warm in summer as Yuma, and for eight months of the year affords an excellent climate. Snow seldom falls on the plain, though the mountain tops are occasionally covered. The summer months are rendered bearable by the aid of adobe houses with thick walls. Annual mean temperature 62° to 65°F .

Camp Grant is about one hundred miles northeast of Tucson, and located, at an altitude of 4,000 feet, along the southeast bank of the Graham Mountains, which tower far above; while a beautiful plain extends for many miles in the distance, bounded by a parallel range, and forming a valley over a hundred miles long by fifteen in width. As most of the storms come from the East, it is in a measure sheltered from their severity. The thermometer occasionally falls as low as 22° , and during the winter and early spring the mountain peaks are covered with snow, but rarely an inch falls upon the valley. The temperature rarely exceeds 100°F . in the summer, and the nights are cool. I did not fail to take out-of-door exercise more than a dozen days during the whole of last winter.

Camp Apache is located in the Sierra Blanco Mountains, lat. 34° , long. $109^{\circ} 45'$, altitude 5,600 feet—constructed on a Mesa, in a beautiful valley, almost entirely surrounded by mountains. The White river, a silvery stream of pure water, courses through this valley, which is clothed with a luxuriant verdant growth, while the mountain sides are covered with the live oak, cedar, pine, and fir trees. The winters here are sometimes harsh, the thermometer registering occasionally as low as 6° , with considerable rain and snow; yet when the days are clear, the temperature is mild and bracing. But from May to December the climate is superb, the temperature rarely reaching 100° at noon, and generally falling to about 70° at night, causing a blanket to be comfortable, and refreshing sleep certain. This summer the snow did not disappear from the mountain tops until the middle of June, and the so-called rainy season commenced about the first of July and lasted until September 1st. During this period frequent showers, with vivid lightning, occur at night, leaving the day bright, with a delightful atmosphere.

You will thus see that almost any temperature desired may be obtained within a comparatively short distance, according to *latitude* and *altitude*. The valleys, foothills, canons, and mountains—the pleasing variety of vegetation, from the rich grass that carpets the valleys to the forests of huge pine and fir which cover the lofty mountain tops, and the abundance of game in many sections—render the country attractive and grateful to the eye, and with the undeveloped mineral wealth, offer promise of future wealth and greatness.

The climate of Central Arizona and California, on the whole, resembles that of the Italian climate, whose chief injurious effect is to indispose the people to labor of hand or brain. The *dolce far niente* of the Southern Italian is unknown in California. The peculiarities of this climate which distinguish it from that of the States east of the Rocky Mountains, are, that the summers are cooler and the winters warmer, and that there is neither a frequent nor a sharp change from heat to cold, or the reverse. The air, too, is much *drier*; there are fewer cloudy days, and fewer storms than in the Eastern States. To this must be added a circumstance most important and delightful to the inhabitants, that the nights are always cool and refreshing, even where, as in the low-lying valleys of the Southern part, the days are often hot. The dryness of the atmosphere, which favors a quick dispersion of the perspiration, makes even a high temperature far easier to bear than the same temperature in a damper climate.

The climatic features most closely connected with air—temperature, humidity, movement, weight, composition, electrical condition, and light (the necessity of which for growth and perfect nutrition makes us feel sure they are important parts of climate)—are found in the most desirable conditions within the limits of this section. The numerous little valleys and secluded cañons afford protection from the sudden storms of winter, while the more elevated positions afford a retreat from the summer heat and malarial poison.

I have been astonished to find how well in this dry atmosphere phthisical persons will bear great changes of temperature, if not exposed to moving currents of air; and there can be little doubt that the wonderful balance of the system is soon read-

justed. I knew an officer during the past winter, whose lungs were much diseased and functions greatly impaired, much benefited by moving into the mountains at a great elevation, where he lived in a tent and superintended a party of wood-choppers. The air in these pine and fir forests seems to be soothing to the delicate mucous membrane. My experience does not agree with the opinion that "in chronic lung diseases, a moist air is generally most agreeable and allays cough—and that the evaporation from the lungs produced by a dry atmosphere appears to irritate them."*

* "In ascending mountains there is rarefaction, i. e., lessened pressure of air; on an average an ascent of about 900 feet takes off a half pound: there are also lowered temperature and lessened moisture about 4,000 feet; greater movement of the air; increased amount of light; greater sun radiation, if clouds are absent. The air is freer from germs of infusoria."* "At altitudes under 6,000 or 7,000 feet the effects of mountain air are a very marked improvement in digestion, sanguification, and in nervous and muscular vigor. Tissue change is accelerated. As a curative agent, mountain air ranks very high in all anæmic affections, from whatever cause—malaria, hemorrhage, digestive feebleness, and even lead and mercury poisoning.

"Tubercular phthisis occurs *not rarely* in the lower mountains or sub-Alpine region, but in the true Alpine region it seems to be almost absent. Thus it is of very rare occurrence among the priests on the Great St. Bernard. Patients affected with phthisis in Lima are sent on to the adjacent mountains of Peru, where the disease is scarcely known at an elevation of 8,000 feet. It is described as very rare at Mexico (7,000 feet) and Quito (8,700), and still more so at higher elevations."†

"At Vera Cruz the disease is common; at Puebla and on the Mexican heights, it is almost absent."‡

My experience fully accords with the above.

A cubic foot of *dry* air at the sea level and at 32°F. contains 130.4 grains of oxygen. An ascent about 5,000 feet, which reduces the barometer to 25 inches, will lessen this $\frac{1}{6}$ th=108.6 grains. Now it is supposed by many that the increased number

* Parkes' Practical Hygiene.

† Hermion Weber, Climate of Swiss Alps.

‡ M. Jourdanet.

of respirations compensate for this deficiency; but from observations made on the troops and Indians at this elevation, I have been unable to discover sufficient increase of respirations to make up this deficiency in oxygen. There seems to be an unconscious tendency to take a deeper inspiration than usual every 4th or 5th time, which may compensate to some extent. Experiments on animals tend to show that when the proportion of oxygen does not sink below a certain point (14 per cent.), as much is absorbed into the blood as when the oxygen is in normal proportion.

The distance traveled by the Indians and horses in this section is almost incredible. A well authenticated case occurred where a body of allied Indian soldiers marched sixty-four miles in twenty-four hours over a rugged mountain trail. One of the guides, who has lived with these Indians for years, assures me an Indian traveled afoot sixty miles between sunrise and dark, and offered to wager a hundred dollars that there are many on this reservation who can travel a hundred measured miles within twenty-four hours. Couriers have sometimes ridden the same horse a hundred miles from sun to sun, and a case is reported of a hundred and twenty miles being ridden in the same time, without injury to the animal.

I do not mean to say that the climate of mountainous regions is *essential* to the cure of phthisis, but do think it possesses many advantages, and is more likely to prove beneficial in the earlier stages of the disease. In cases where there is disintegration of lung tissue, an elevation of 3,000 feet may be safely tried, and by gradual approach double that elevation may be attained without injury and probably with benefit, provided no serious disease of the heart exists.

As Arizona and New Mexico are inaccessible, and the accommodations for travelers at present so indifferent, it is not likely to become a popular resort until the railroad connects it with the outside world. Then, in my opinion, it will become the Mecca of the continent for consumptives. But Southern California, which is but little, if any, inferior, is very attractive and easily reached. The following extracts from a letter in Nordhoff's California, written by a consumptive, who has visited nearly all the popular resorts for that class of patients in this

country and Europe, explains itself, and is, I think, not over-drawn :

ANAHEIM, LOS ANGELES CO., CAL.

Southern California presents a most gloriously invigorating, tonic, and stimulating climate, very much superior to anything I know of—the air is so pure and so much drier than at Mentone (on the Lake of Geneva) or elsewhere; and although it has these properties, it has a most soothing influence on the mucous membrane, even more so than the climate of Florida, and without the enervating effect of that. It is quite as stimulating as Minnesota, without the intense cold of that climate. *** During the past winter, out of one hundred and fourteen days, I spent one hundred and six in the open air: This was in part of November, December, January, and February. Italy generally is a poor climate for the invalid, and the “pure blue Italian skies” are not to be compared to ours. One can come to California and spend the winter as cheaply as in Vevey, Clarens, or Montreux, and these places are the cheapest winter resorts in Europe. For instance, in Santa Barbara or at Horton’s in San Diego, one can board for forty-eight dollars per month.

ART. VI.—*Removal of Scirrhus of the Breast by Galvano-Cautery.* By THOMAS J. DUNOTT, M.D., one of the Visiting Surgeons to the Harrisburg Hospital, Harrisburg, Penn.

In July last, my friend, Dr. Geo. W. Ruedi, requested me to visit with him a lady having a tumor of the left breast, presenting the usual history of scirrhus, but likewise some unusual features.

The patient, about 55 years of age, I found to be robust; during her life, until the development of this tumor, she had never been confined to bed except during and after childbirth. There was no history of cancer in her family; and the origin of the present diseased mamma dates from a severe blow, received directly upon the organ involved. Shortly after the injury, an induration was noticed, which, increasing in size with rapidity, and becoming painful, excited the fears of the patient, and induced her to seek advice from Dr. John L. Atlee, of Lancaster, who pronounced it cancer; but declining to remove it at that time, he advised palliative measures.

Receiving from Dr. Atlee an unfavorable prognosis, she then sought the advice of a cancer doctor, who promised cure, and

made application of some active caustic, which the patient described as a black paste, probably the carbo-sulphurici. The application destroyed the centre of the gland, but did not prevent the usual rapid increment of size.

When, in consultation with Dr. Ruedi, I first saw the patient, the mass was nearly six inches in diameter, and penetrated at its centre to the depth of three inches by a crater like excavation. This cavity was lined with sloughing detritus, the odor of which was marked and highly offensive. The cutaneous edges of this ragged opening were everted, indurated, and bluish. The tumor was only moderately attached to the wall of the thorax, and the glands and lymphatic vessels were not perceptibly implicated, although there was considerable surrounding oedematous swelling. The general health of the patient was not much involved; in appearance she was not cachectic, and therefore it seemed, both to the attending physician and myself, to be a favorable case for operation. The deep opening, however, precluded the idea of the surrounding parts being free from disease, and it was a grave question in our minds whether we would be justified in operating in the ordinary way.

It was determined—the consent of our patient having been gained—to remove the breast, thoroughly excise its base, then control interstitial bleeding, and seal the mouths of open lymphatics and arterial capillaries, as also to destroy adjacent structures liable to morbid proliferation—to thoroughly cauterize the whole cavity by means of the galvano-caustic battery and the usual platina-devices.

The effort to secure a suitable instrument was for three months a failure; but at last, provided with a battery constructed by Mr. Wm. F. Ford, of New York, and assisted by Drs. John J. Caldwell, of Baltimore, R. H. Henry and Tree, of Harrisburg, the operation was begun, and finished in the most thorough manner. Every suspicious tissue, after the gland had been excised by Dr. Ruedi, was removed by scraping or cutting, and then thoroughly charred with the white hot platina wire devices of Dr. John Byrne, of Brooklyn. The amount of bleeding was insignificant, and the largest vessel cut was readily hermetically sealed. In the first stage of the operation, two vessels were tied, but the perforating arteries from the mammary were difficult of seizure, and were therefore controlled by pressure with the fingers until the breast was removed, and then in quick succession sealed with the ever ready cautery. The operation completed, the parenchymatous oozing was suppressed by approaching the white hot dome-shaped wire near enough to check it, but so rapidly as not to sear deeply, or change to any extent the color of the surface.

The adipose tissue being very abundant, the appearance of the site of the tumor was that of a very broad and deep cavity. It was perfectly dry, and the movement of the ribs, their muscles, their color and general relations, were admirably distinct. The only two points of fixation being near the sternum superiorly, and to the pectoralis muscle below, these parts were first shaved away with the knife and then thoroughly burned, so as to destroy all resemblance to the natural tissue.

The time occupied was nearly 40 minutes, and during the entire operation the pulse and breathing rate were well maintained. When the effects of the ether had passed away, there was some vomiting, but no signs of exhaustion or shock. The operation was done on October 16th, and to-day, 23rd, the patient is steadily improving. There is no pain, no fever, and no sign of impending danger.

The above case is reported with the hope that the attention of the profession, and especially of the country practitioner, may be drawn towards this method of operating. How much originality there is about it, I cannot say—perhaps there is none—but I have never heard of scirrhus of the breast being dealt with in this manner. The points of moment to be determined from future experience, are:

1st. What certain efficacy is there in this method of dealing with parenchymatous or bleeding arterial hemorrhage from large vessels?

2d. How much safety is there from septicæmia and pyæmia when so large a surface over the chest walls has been seared?

3rd. How far is it prudent to use violently destructive agencies in such close proximity to the heart, pleura, and lungs?

4th. Most important of all, what immunity is gained from recurrence? Certainly if the chances of the patient are improved only in increased immunity from recurrence, it would be well to accept any reasonable danger to accomplish so important a result in a disease that is otherwise so fatal in its results.

The usual operation for the removal of scirrhus tumors—closing the wound to secure rapid union—seems highly objectionable. To quote (Dr. Beard, *Arch. of Electrol. and Neurol.*, May, 1874), “the battle-ground on which is to be fought out the question whether a cancer is to recur or not, is not in the tumor, but in the surrounding tissue, and at a considerable distance from the main body of the tumor.” In order, then, to

avoid shutting up "cancer cells" in a fruitful soil, we have not in this instance closed the wound, but have *approximated* its edges with silver wire sutures, leaving a wide gap. It is proposed to watch the base, and in case of any return to scrape away any diseased tissue and sear its base. Dr. Byrne, of Brooklyn, has clearly shown, in his *Uterine Surgery*, the propriety of this method. The value of the principle in dealing with scirrhus of the breast has yet to be gained, so far as I know, by experience, and we add our mite to the general fund. Its result in this case will be reported at some future day.

Before closing, I will state that the battery used was a small instrument devised by Dr. John Byrne, of Brooklyn. For economy of space it is unsurpassed, and its heating force leaves nothing to be asked for. It has glass cells and an agitating apparatus to keep the negatives clear from hydrogen. This is not the usual manner in which it is constructed, and I believe it is the first ever made by an instrument-maker. As previously seen by me, it had but one compound cell, divided by a middle partition and lined with lead. This instrument is a precise model of one shown me by Dr. B., and was constructed in the most beautiful and substantial manner by Mr. Wm. Ford, who has charge of the surgical instrument department of Caswell, Hazard & Co., New York.

To Dr. John J. Caldwell, of Baltimore, who was kind enough to give us his assistance, we are indebted for many valuable suggestions in the management of the battery.

Clinical Reports.

Gelsemium in Cases of Rigid Os-Uteri and Sphincter Perinei.

ROBERT S. PAYNE, M.D., Lynchburg, Va., Honorary Fellow, and late President of the Medical Society of Virginia.

Case 1.—I was called to Mrs. S. at 4 o'clock on the morning of June 2d, 1874. She informed me that she had been in labor for several hours. Examination indicated no progress. The os uteri was thick, hard and unyielding. I ordered a warm

water enema, and left my patient until 9 A. M., at which time I found no change, except that she was much discouraged, having suffered from the same difficulties (she had been informed as to her condition) seven times before, for she was now in her eighth confinement.

Her first child was born September 14th, 1856, after a protracted struggle of eighteen hours before the os uteri had dilated sufficiently for the passage of the foetal head; and although pains continued frequent and very severe, another four hours elapsed before the restraint of a rigid perineum could be overcome. I attended this lady in six of her seven preceding labors, and can testify as to their severe and protracted character. The seventh occurred during her temporary stay in a distant State, resulting in a still birth, and, according to her testimony, was more severe and protracted than those preceding; her medical attendant assured her that at no time had he witnessed so obstinate resistance offered by both os uteri and perineum. During the six preceding labors witnessed by myself, I had resorted to all of the usual remedies to overcome these sphincteric contractions, (the only observable barriers to physiological delivery). I used the lancet, laudanum and ether, tartar emetic, ipecac, belladonna ointment to the os uteri, warm water enemata and chloroform; each of these remedies was used at various times as far as, in my judgment, prudence would dictate, but without any very perceptible advantage in overcoming the sphincteric contractions or lessening the period of labor.

With my experience in this lady's case, I decided to try in this, her eighth labor, the efficacy of gelseminum as a relaxing agent. I gave her five drops of the fluid extract every five minutes, as near as I could reckon the time. Just after administering the fifth dose (25 drops in all), she made an effort to vomit, purely the effect of the reflex relation between the os uteri and the cardiac orifice of the stomach; at this moment a pain came on, the expiratory excitors were brought into play, and, on examination, the foetal head was found to have passed out of the womb, and was pressing strongly upon the perineum, which, in turn, had become relaxed; the next pain expelled the child. *Was this a mere coincidence?* I think not.

While much delighted to witness so happy a termination of this labor in contrast with her former protracted suffering, I still apprehended that contraction of the os uteri might take place, leaving an encysted placenta to contend with. Accordingly I proceeded to remove the retained mass as promptly as possible. Finding the placenta separated from its uterine connection, but still within the cavity of the organ, I at once introduced my hand through the vagina, and with the index finger of one hand, and tension upon the cord with the other, the placenta was removed without difficulty. This incident would be unimportant but for the fact that when the hand and placenta were being removed from the vagina, I encountered the most forcible perineal contraction I have ever witnessed. My patient did well.

I am aware I seem unnecessarily minute in the details of this case, but let it be remembered that I regard this a typical case, indicating that gelseminum does possess the power of relaxing sphincteric contractions.

Case 2.—I was called to see Mrs. F. on the afternoon of September 17th, 1874. Found her in labor with her fourth child. On examination during a pain, I found the os uteri undilated and undilatable; during the absence of pain, however, it was soft and slightly dilatable; but on the recurrence of pain the os again contracted with a force commensurate with that of the fundus and body of the womb. As this abnormal behavior of the os had been observed by me in her three preceding labors, protracting them several hours longer than was desirable, I felt justified in this, her fourth labor, to attempt a relaxation of the rigid os with such agents as were at hand. I did not doubt but that chloroform would accomplish all that was needed, but Mrs. F. was reluctant to try it, and her mother, who was present on each occasion of her confinement, was very much prejudiced against its use. I therefore decided to administer ten drops of the fluid extract of gelseminum. About ten minutes after administering the dose, she gave birth to a healthy boy. I was not in the house more than one hour.

I have had occasion since the last case above reported to use gelseminum in sphincteric contraction of the os uteri; but as

the case was so similar in all respects, both as to its nature and termination, with that of Mrs. F., I think its detail would subserve no good.

While the reporter does not believe that the above cases prove conclusively that gelseminum possesses a specific effect in relaxing rigid sphincteric contractions, yet he thinks them significant, and hopes that his brother practitioners will test the therapeutic effect of this agent in similar cases, and report the result of their observations. Their joint experience, whether it *affirms* or *disproves* the specific qualities herein ascribed to the medicine, cannot fail to do good.

Aneurism of the Arch of the Aorta. JAMES C. DEATON, M.D.,
Richmond. (Read before the Richmond Academy of Medicine, September 17th, 1874).

Steven Garnett, colored, aged 27 years, medium size, well knit frame; has been healthy throughout life with the exception of rheumatism six years ago; has no hereditary taint, though the skin is elevated and thickened in two places over the middle of the sternum as if caused by specific trouble.

I first saw the patient, June 8th, 1874, when he was suffering intensely with dyspnœa, and sharp, acute pains shooting through the middle portion of the sternum, and between the third and fourth ribs—occurring in paroxysms. Auscultation revealed a slightly diminished respiratory murmur in the left lung, and rather exaggerated respiration on the right side. Heart excited, but no murmur detected.

On the application of a blister to the seat of pain, it moved to the left shoulder; it left this position on the application of the same remedy, and, traveling along the clavicle, settled at its sternal extremity, where it became intense. The parts were very much swollen at this point. Dyspnœa was much relieved by the use of tincture of digitalis, smoking stramonium leaves, and by inhaling the fumes of nitrate of potash. The relief from pain and the disappearance of the swelling seemed to be coincident.

The patient was progressing very well, when in a few days the

symptoms returned with renewed violence; the swelling increased and pulsation was detected in it. About this time, aneurism was suspected, and several medical gentlemen were invited to see the case in consultation. It was obvious that the tumor, by pressing upon the air tubes and œsophagus caused dyspnœa and dysphagia; upon the pneumogastric and other nerves, produced pain.

July 20th.—Patient weakened and debilitated by disease and want of nourishment. It is difficult to induce him to try to swallow, and the effort causes so much pain and distress that little food can be taken. Face anxious. He cannot lie down with comfort, is propped up in bed, pulse 96, strong and full; respiration 18, breathing mostly thoracic. The tumor was now measured and ascertained to be 5 inches transversely, 3 inches perpendicularly, and apparently elevated about $1\frac{1}{2}$ inches above the normal surface of the body. The sternal third of the left clavicle, forming the base of the tumor, is almost obliterated and cannot be felt—the swelling ending at the sterno-clavicular junction of the other side. Pulsation slightly discernible at apex of the enlargement; but no bruit detected by stethoscope. Lungs normal except such sonorous and sibilant rales as are to be expected when dyspnœa exists. Heart, apex beat two inches below, and one inch to right of left nipple; except slight roughening of its sounds, nothing of importance was observed.

Some difference of opinion existing as to the contents of the tumor, it was determined to ascertain its nature by acupuncture.

While preparing for the operation, patient became much excited, fell forward on his face gasping for breath. Under the impression that the trouble was aneurism of the common left carotid, tracheotomy was immediately resorted to, and a large stiff tube introduced immediately below the supposed point of pressure with the effect of affording some temporary relief; a great deal of frothy and offensive mucus was discharged through the opening. Patient however soon sank and died.

July 21st.—Autopsy 16 hours after death. Opened thorax; the heart, aorta and parts connected with the tumor were removed *en masse* and carefully dissected.

The walls of the right side of the heart were hypertrophied, and most of the valves considerably thickened. The tumor commenced at the curve of the arch of the aorta, and involved the

whole of the transverse portion, and contained $7\frac{1}{2}$ ounces of clotted blood, some portions of which were whitish and well organized, and in layers like the body of an onion. The left clavicle from its middle to its sternal articulation was necrosed, and the sternal extremity of the right clavicle partially so.

The visible swelling at the left sterno-clavicular articulation did not appear until ten days before death, the patient having suffered for six weeks. It might have happened from other causes than aneurism, and pulsation might have occurred in any tumor in a similar location. No bruit was detected. There were no symptoms that might not have resulted from other causes, rendering diagnosis extremely difficult.

The relief of symptoms while using tincture of digitalis, dry cups and other remedies was well marked. Tracheotomy gave great relief to the sufferings, and prolonged life for a short time, although the real disease was in no way altered, and continued its march towards a fatal termination. I consider that the size; position, and contents of the tumor were unusual.

Correspondence.

Is Drinking-Water a Cause of Malarial Fevers ?

My Dear Doctor :—Although my own inclinations and present exigencies would lead me to lay aside the pen ; yet as my esteemed friend, Dr. Herbert M. Nash, calls the particular attention of physicians practising in malarious districts to the subject of his late article in the *Monthly* on the production of malaria, I am induced, from the possession of some material facts concerning a locality alluded to by him, to state them in order to arrive at just conclusions.

To strengthen his position he cites the instance of a farm situated in the Holland Swamp, in Princess Anne county, and within the bounds of my practice, "the healthfulness of which was speedily and almost entirely ensured by the construction of a cistern, which farm had been almost untenable from its insalubrity." The only cistern in Holland Swamp indicates the spot with precision. Abundant evidence shows it to be now,

as heretofore, only subject to the ordinary diseases of the imperfectly drained lands of the county, nor do I think it has materially improved in any respect. The water obtainable from its well is rather offensive to the taste, and at times is barely potable. Now the pertinent question is, not whether such water may be the cause of disease, for this is not disputed, but whether it may specifically give origin to *paludal fever*.

My attention was drawn to this well as early as the year 1845. In that year I was called to attend a young married man, æt. 23 years, who had been domiciled on this farm since the 1st Jan'y. His disease was peculiar and would now be designated as typhomalarial. Fortunately its record is preserved in my book of cases and is as follows :

"The attack came on with a slow fever for a few days preceding the 7th July, when the first visit was made. The eyes were brilliant, face flushed, fever high, tongue very furred, bowels rather costive. Laxatives and refrigerants were prescribed. On the 8th and 9th the fever persisted with a scarcely perceptible remission each morning. The secretions were much vitiated. A dose of calomel was prescribed, (but other treatment was not noted down.) On the 10th and 11th large doses of quinine were given with serpentaria. Notwithstanding this, dysentery with a great proclivity to collapse supervened on the 12th, and opium was now combined with the quinine. 14th, sordes began to accumulate about the mouth and teeth; ordered anodynes, mercurial pills, diffusible stimuli, emplastrum cantharides abdomini. For nearly a week his prostration was extreme; he had cold, colliquative sweats; cold, wrinkled skin; delirium succeeded by deafness. Gave one pint of wine daily; quinine grs. vj twice daily; aqua calcis and anodynes *pro re nata*. This treatment seemed effectual and convalescence began on the 22d July. No other case occurred in the family or in those who nursed him, or among the negroes of the farm.

On my recommendation and for the comfort of the next year's tenants, a cistern was built. In a year or two afterwards with all the advantages of the cistern, a gentleman living on the place died of congestive fever after a brief illness. In 1849 I attended on the place a case of dysentery that recovered, and since then, and especially during the war, I have attended quite

a number of cases of paludal fever on the identical place. I think a medical friend of this county has had similar experience on the same farm.

On another distant farm gastro-enteric symptoms were apt to follow the internal use of offensive well water in the months of June and July, but it was noticed that the whites and not the negroes were thus affected.

To our apprehension it will be found when duly investigated that cistern water when substituted for well and spring water will not prove a preventive of paludal fever. For the last two years very few cases of paludal fever, comparatively speaking, have been treated in this region, and the new-comers have been more exempt than the native population who are more or less under the influence of malarious cachexia.

So far from being authoritative on this subject, the views of Dr. Parkes, as quoted, betrays a singular inacquaintance with the cause and pathology of malarial diseases. In proof of this a single passage will suffice. "Either," says he, "the fever making cause must be in *larger quantities* in water, or, what is equally probable, must be more readily taken up by the circulation and carried to the spleen than when the cause enters through the lungs." Most of this may be gleaned from Burton's *Anatomy of Melancholy*, and is certainly not a step in advance. What about the bronzed liver of other authors and the evident changes in the circulating mass, &c.?

Again I find in the article that has drawn forth these remarks: "M. Commaili (Parkes, 1868) states that, in Marseilles, paroxysmal fevers were unknown until the supply of water for the city was taken from the Marseilles Canal." If this be corroborated as a general fact, it must end in the abandonment of the Norfolk Water Works. The Board of Health of that city will condemn the water "of streams draining forest lands"—that from a marsh or malarial region, and from "soils constituted as those of Norfolk and Princess Anne counties more particularly." For my part I do not participate in such an opinion, but look upon the Water Works of Norfolk as the fountain of health, safety and prosperity to that cherished city.

Yours truly,

A. G. TEBAUT, M.D.

London Bridge, Princess Anne Co., Va.

Proceedings of Societies.

RICHMOND ACADEMY OF MEDICINE.

October 1st.—**A Pessary** was exhibited by Dr. F. D. Cunningham, which he had devised, and with which he had obtained good results in two cases of chronic prolapsus uteri. Both patients, married, but sterile for several years, were now pregnant. The instrument consists essentially of a Hodge's double-curved closed-lever pessary, upon the upper surface of the long arms of which a simple ring pessary is soldered. Dr. C. claimed that this instrument combines the advantages of both the ring and closed-lever retroversion pessaries. It is easy of introduction, and the specimen exhibited being made of the "amalgum wire," has the advantage of being easily moulded by the fingers to suit individual peculiarities. But the most important of all the advantages is that by its use the uterine lateral ligaments are uplifted, and the upper vaginal wall moderately distended without interference with the rectum or urethra.

Causes of Malaria in Richmond, and Influences that Promote its Production was the subject for discussion.

Dr. J. B. McCaw said that near the localities in the city particularly infected by malaria, there are bogs, ponds, &c. He thinks that the construction of well located culverts that would properly drain these places would remove the causes of malarial affections existing in this city.

Dr. J. G. Cabell thinks another important element in the cause of malaria is the saturation of soil throughout the city. The peculiar "clay pan" substratum renders perfect drainage impossible. In order that culverts may drain the soil of waste water and excreta, they should be built with tiles or broken stone around them. But some of the causes of malaria in Richmond originate outside of the corporate limits, as the old military earthworks around the city, the boggy condition of much of the land just across the river in Chesterfield county, &c. He does not believe that the great conflagration in April, 1865, was a cause of the malaria which has prevailed since the war. He thinks the upturning of street soil in summer, as in laying culverts, &c., highly injurious. The town authorities of Galveston and other Southern cities, especially, recognize this fact by imposing a fine upon any one who digs in the street during the heated season. As president of the city board of health, he is trying to secure such an ordinance for Richmond.

Dr. L. S. Joynes remarked that statistics show that, with in-

crease of population, cities usually become less malarious. Moreover, street-paving lessens the dangers of malarial infection. For instance, the thorough paving of the streets of Norfolk lessened the malarial influences of disease there, and by so much improved the general health of the citizens.

Dr. F. B. Watkins remarked that, in former years, with a smaller population, and when the streets were not so well paved or cleaned, and when the system of drainage was not so perfect as now, though hills were being dug down, foundations excavated and gullies filled with dirt thus obtained, this city was freer of malaria than now. If the causes of malaria in Richmond be always the same and such as had been stated by other speakers, why is it that in different years malaria manifests itself with such varying effects? If stagnant water, vegetable decomposing matter, &c., exposed to scorching summer's suns occasioned malaria, it would be difficult to explain the remarkable healthfulness of the city during the late heated season, as also at this time. The same remark is applicable to the section of country skirting the banks of the Mississippi which were submerged last spring.

Dr. M. M. Walker stated that, though there were a large number of severe cases of malarial disease last year in the Penitentiary, malarial sickness has been very much less this year, though the pond instanced by Dr. McCaw near the Penitentiary as a cause of malaria, still remains.

October 15th.—**The Report of the Committee on Public Health** (by Dr. L. S. Joynes) showed that the health of the city during September was better than during the same month for the past four years.

Of cases of special interest, one of *intestinal hemorrhage successfully treated by 3ss. doses every hour of fluid extract of ergot*. The hemorrhage occurred at the commencement of convalescence from typhoid fever.

Another reporter mentions two cases now under treatment whose hands had been injured by forcible contact with human teeth. The condition of the wounds in each case had been so severe as to raise the question *whether or not certain wounds inflicted by the human teeth should be considered and treated as poisoned wounds?*

Prolapsus of the Uterus During Labor, with Fissures of the Cervix Uteri.—Dr. John N. Upshur reported that he had recently attended a young, frail, mulatto woman in labor who was about 7 months gone, and whom he had at a former time successfully treated for endometritis and prolapsus. On digital

examination, a soft, spongy mass was felt, which proved to be the enlarged and elongated (about $3\frac{1}{2}$ inches) cervix, the mouth of which was open. As labor progressed, the foetal head, within the uterus, passed out of the ostium vaginae with each pain, but was retracted after the cessation thereof. At the end of one of the pains, Dr. U. grasped the cervix and held it outside of the vulva until the next pain came on, when "the cervix cracked and tore open in probably 15 places, and the child was delivered with a *gush*." The child was very small, but lived and is doing well. The mother has since experienced only ordinary soreness.

Spontaneous Cure of Congenital Inguinal Hernia.—Dr. Joynes stated that the case reported, page 113, (May No.) had recovered spontaneously.

Relapsing Diphtheria.—Dr. R. T. Coleman reported the case of a boy, aged 5 years, with diphtheria. A patch of membrane on the pharynx was readily detached with a brush. Under usual treatment, patient did well, visits were discontinued, and the family moved into another house. In a few days, Dr. C. was recalled; head hot, perspiration profuse, and membrane again developed. Gave liq. chlorin., internally, and used turpentine and lunar caustic locally. On the second day thereafter, the child had a croup-cough, dysphagia, difficult breathing, and the nose also was affected. Lime vapor inhalations were immediately resorted to, and in a few days diphtheritic symptoms disappeared. The liq. chlorin. was continued. The child went to the country, but partially lost the power of coordination. But the child recovered perfectly under the use of strychnia, phosphoric acid, iron and cod-liver oil.

Dr. Hunter McGuire had used lime vapor inhalations for several years in diphtheria, and has never seen a child die when so treated. Never employs any other local application than warm water or steam.

Dr. Coleman thinks a 40 grs. to the ounce solution of nitrate of silver locally applied removes the abnormal deposit, and "tones up" the mucous membrane.

A Case of Chronic Dysentery was treated by Dr. Watkins with excellent result by injecting every six hours per rectum, sulphate of copper gr. j, laudanum gtt. x, tinct. of belladonna gtt. vj, water $\bar{3}j$. Within 14 months previously, the woman had been blanched by intestinal hemorrhages. Digital rectal examination revealed epithelial abrasion and tenderness.

Dr. M. L. James prefers the extract of belladonna to the tincture. He recalls a case in which by mistake $\bar{3}j$ tinct. belladonna, obtained from one of our best pharmacists, was given a child two years old without injury.

Dr. H. H. Levy had given grs. $1\frac{1}{2}$ of the extract to a negro man without bad effect.

Dr. Joynes said that hyoscyamus disordered his vision.

November 5th.—The Secretary (Dr. Levy) read a communication from the Richmond Pharmaceutical Association, inviting the attention of practitioners to the importance of writing prescriptions legibly, and without erasure and rewriting prescriptions on the same paper. The communication also asked physicians always to use the technical language and only the abbreviations of the U. S. P., and to write the dose and directions for use on every prescription, and state whether for adult or infant as a guide to the dispenser in case of error in quantity. It also suggests that when unusual quantities of such medicines as strychnia, digitalis, &c., are prescribed, the prescriber shall place on the left hand side, and on a line with the ingredient to which attention is called the letters *q. r.* (quantum rectum). In Germany the caution mark is (!) on the right hand side, and on a line opposite the ingredient in question. Care should be taken to designate which of the tinctures of aconite is wanted, since three are officinal and differ in strength. Always state whether the *dried* or crystalized sulphate of copper is wanted, since grs. *ij* of the former is equivalent to grs. *v.* of the latter, and since only the dried is suitable for pills. Whenever writing such prescriptions as *R. Morph. sulph. gr. v.*, *R. Corros. sublim. gr. v.*, *R. Plumb. acet. 3j*, *R. Tinct. digital. 3j*, *R. Ol. tigllii, ol. morrhuae, aa 3j*, &c., always accompany them with some explanatory note, so that the dispenser may not be left in doubt as to the object of the purchaser in getting such quantities of poisonous medicines.

On motion, Drs. Coleman, McCaw and Parker were appointed a committee to confer with a committee of the Pharmaceutical Association in order to further perfect the carrying out of the suggestions.

Dr. McCaw was recently consulted by a gentleman who, about 14 years ago, was an incessant tobacco chewer, and after intense business application, had been greatly troubled with heart disease. His heart is now the largest that the Doctor has ever examined, and the dilatation of the walls of the heart is extreme. But the peculiar point is that both sounds are abolished—there being only one continuous bruit. The impulse of the organ against the thoracic walls can scarcely be distinguished; nor is this more intense at the apex than at any other part. Strange to say, the pulse is neither intermittent nor very weak, though formerly it was intermittent. He does not know how to account for these things.

After some consultation, the Academy suggested that 7½ P. M. of the Wednesday preceding the exhibition of the State Agricultural Fair as the time for the holding of the next session of the Medical Society of Virginia, which is to convene in this city.

AMERICAN PUBLIC HEALTH ASSOCIATION.

[We regret very much that our space will not allow of a full synopsis of the proceedings of this second annual session in Philadelphia, November 10th-13th. For fuller reports, see *Phil. Med. Times* and the *Med. and Surg. Reporter* of November 14th and 21st, the *Evening Telegraph* and *The Press*, of Philadelphia, November 11-14, inclusive—from all of which we have compiled the subjoined report.]

Dr. Stephen Smith, N. Y., in the chair.

Dr. Henry Hartshorne read an interesting paper on **Excessive Infant Mortality in Cities**. To remove ante-natal causes of infantile mortality, such as intemperance, excesses, &c., of parents, moral reform, popular education, and sanitary police should be invoked. These influences should also be used to decrease post-natal causes; in addition, Dr. H. insisted upon children's excursion parties in hot weather, and upon summer-camps outside of large cities for mothers with young infants. Such camps would be training schools in healthy living to all who occupied them, the effects of which might last long afterwards. By thus removing a part of their population, the worst quarters of the cities so relieved might be open to inspection and effectual compulsory sanitation.

Influence of Hereditary Defects upon Health.—Dr. J. R. Black (Newark, Ohio) said hereditary defect may imply disease directly transmitted, as syphilis; or deformity, as hare-lip; or simply tendency to disease, as insanity. Digestive organs are the first of the vital harmonies to fail from bad habits of life. If such habits be continued for a generation or two, inbred weakness of these organs will become an inheritance of offspring. Of late, the achievements of science have actually tended to produce an increase in the number of physically degenerate men and women by interfering with the natural law of "the survival of the fittest." The great preventive requisite is personal and thorough knowledge of what constitutes true vigor, sympathy and health.

Dr. J. G. Richardson (Phila.) three years ago said that he-

hereditary disease was the effect of a law of nature which he had formulated as "the extinction of the unfit."

Rev. Dr. Samuel Osgood (N. Y.) contended that "the survival of the fittest" is not always the rule. The worst men often outlive the best of their fellows.

Death-Rate of each Sex in Michigan.—Dr. H. B. Baker's (Lansing) report shows the relative mortality to be about the same at all ages, no climateric influence showing itself in females. A comparison of deaths per 1000 population in healthy districts of England (according to Dr. Farre's life tables) and in Michigan, showed the percentage to be about the same up to the 80th year, after which the difference was in favor of Michigan.

Hospital Location and Construction.—Dr. J. S. Billings (U. S. Army) said that experience has shown that costly hospitals, even on the pavilion plan, are not necessarily free from the evils of "hospitalism;" a practical trial in our late war, confirmed more recently in Europe, has led to the recommendation that hospitals should be temporary wooden structures, intended to last but ten or twelve years. The good results in our large military hospitals were due to their being located in the country, where there was plenty of room and fresh air. The class of patients was better, the control more efficient, and they were more readily classified, than in civil life. When zymotic disease occurred, tents were largely used; and the more they were employed the better the result. Economically, if one-half the money required for brick or stone structures was used to erect plain balloon-frame wooden buildings, and the other half invested at ordinary rates of interest, at the end of about twelve years the amount of money on hand would be what it was in the beginning, when the old buildings could be removed and the process repeated, thus giving a new hospital every twelve years. The necessary buildings for 200 patients should be constructed for about \$50,000. The smaller the number of patients, the greater the cost per bed.

Many special advantages pertain to floating hospitals, which might be constructed on flat-bottomed boats radiating from a central polygon, any one of which might be detached and floated off if at any time there was such a necessity. Such a hospital could be arranged for 300 beds or less, as space can be more conveniently obtained on water than on land; but the temporary character of the structure must be insisted upon. When a hospital must be built in the city, brick may be used. The laundry should be at the top of the administration building, by which means ventilation would be improved by the heat which

must constantly be in this portion of the establishment. This arrangement has been adopted in one of the recently-built army hospitals. The plaster with which hospitals are lined should be of good character and hard finish. The walls should be cleansed by burning with a large smokeless flame. Twice a year the walls should be thoroughly scraped, and the plaster entirely removed at least every ten years. In certain army hospitals whitewashed canvas has been successfully used, which can be renewed at pleasure. Erysipelas and puerperal cases should be treated in cottage-hospitals, or be assigned entirely separate and distinct quarters. As regards ventilation, fire-places are useful auxiliaries, but hot air is better for general use. The best plan for changing the atmosphere of an apartment rapidly is to have the floor riddled with minute holes, through which fresh air, warmed when necessary, may be introduced: in a hospital, however, this is impracticable. The air of a ward cannot be made fresh by any means; the object is to dilute the foul air as much as possible. Water-closets should be ventilated from below, and their ventilation, as of bath-rooms, should be entirely separate from that of the wards. As wards are at present arranged, there is absolutely no privacy. There is too much light for many cases, and too much sameness in temperature and moisture. In the future model hospital, one-, two-, and three-bed wards will be used, except for convalescents. Special beds will be provided with funnels suspended over them, so that patients will be entirely isolated, and even where gangrene is present the surrounding air will remain odorless. Above all, good superintendence is necessary.

Sanitary Relations of Hospitals.—Dr. Wm. Pepper (Phila.) believed that the frightful mortality in many large hospitals from such diseases as pyæmia depended essentially upon remediable faults in construction, or in administration, such as overcrowding of patients, or placing too many wards on a limited area of ground. The Norwich (England) Hospital, until 1862, held a high reputation—the percentage of cures, in a long series of operations for stone, even, being but 1 to 8½. But since 1862, this hospital has been overcrowded, and a frightfully increased mortality has resulted. Certain wards should always be closed and in reserve, only to be occupied when the other wards are not in use. A well-built, permanent hospital can be purified thoroughly, and far more cheaply than a barrack-hospital can be destroyed and reconstructed. In the Pennsylvania Hospital, when pyæmia has appeared in any ward, that ward has been thoroughly cleansed and vacated for months; on reopening it, no pyæmia has appeared. In the medical wards no

epidemic has ever prevailed, with the exception of a mild form of facial erysipelas from time to time. Among other arrangements for keeping a large hospital healthy, isolated apartments or tents should be used for cases of erysipelas, gangrene, dysentery, or any of the contagious fevers. Dr. P. thinks it the duty of every city to supply ample hospital accommodation, but the construction should be with as strict a regard to economy as is consistent with efficiency. Hospitals should be near the centres of population, in order that the services of the best medical men should be secured. If barracks of brick and stone are erected, not only are they liable to become infected just as the wards of a larger permanent structure, but it may be doubted whether the cost of construction per bed would not be as great as in the latter case. Dr. P. thinks the medical staff are too much engrossed in the cases, and too prone, in their desire to extend the benefits of the institution as widely as possible, to admit more patients to the wards than should properly be received. A hospital should contain medical men of experience, entirely unconnected with the staff, in conjunction with a certain number of business-men.

Factors of Disease and Death, after Parturition and Surgical Operations was the title of an interesting paper by Dr. S. D. Gross, (Phil.,) in which he dwelt upon the necessity for the most scrupulous neatness in all surgical operations—the particular dressing employed in any given case being comparatively a matter of indifference. The poisons of various diseases are sometimes communicated from person to person in an almost unaccountable manner. The specific poisons of cholera, diphtheria, smallpox and scarlatina were instanced as particularly tenacious and potent. He stated the average mortality from zymotic diseases at $26\frac{1}{2}$ per cent. of all deaths. As to hospitals, the mortality in most of them is frightful. No single ward should have more than six or eight beds, and no hospital should accommodate more than 100 patients. He advocated the erection of convalescent homes or hospitals where those who had passed the crisis of disease might recover their strength without any danger of infection from those afflicted with other diseases.

SECOND DAY.—Dr. Ezra M. Hunt (N. J. Sanitary Commission) read a paper on

Building-Ground in its Relations to Health and Disease.—He recommended more perfect subsoil drainage as distinct from the sewerage systems.

Dr. McRay (Phila.) said that it was but natural that sewerage should soak through and permeate the ground when sewers, as is often the case, are made out of porous brick and sand mortar.

Dr. Stewart (Baltimore) said Baltimore is honeycombed with privies, and fecal matter is disseminated through the soil, and becomes a fruitful source of typhoid fever. However, a complete system of sewers is proposed to be built at an early day.

Dr. J. M. Toner (Washington, D. C.) read a paper on

Causes which prevent the full effect of Vaccination.—

He thinks good would result if competent vaccinators were appointed by the States. In England they are required to stand examinations as to qualifications before appointment. The remedy of the evil that rests with the public is a judicious legal system of universal vaccination. The defects in the practice of vaccination as at present conducted can be remedied or prevented. The virus should be fresh and pure. While nothing can be better than the virus from the animal itself, still it is not proven that human vaccine virus has deteriorated. He does not believe there is danger of communicating other diseases with the vaccine disease. Marsden, who had vaccinated over 50,000 persons never saw an instance.

Dr. Moreau Morris remarked, that, having had charge of public vaccination in New York during the late smallpox epidemic, of 200,000 vaccinations recorded under his supervision, no case of smallpox occurred subsequently. He was satisfied that humanized lymph was as good as the bovine; but it must be fresh, and kept at a proper temperature to avoid decomposition. He agreed with Dr. Toner in thinking that the virus should be introduced at several points. The system should be saturated with the virus. As a rule he repeats the vaccination on the eighth day; even when the first vaccination has seemed successful, the re-vaccination has run its course in some cases.

Dr. E. M. Snow (Providence R. I.) stated that of 500 children vaccinated by him, only one had afterwards taken smallpox.

Dr. Snow also read a paper on

Does Smallpox become Epidemic?—He thinks not.

Dr. Hartshorne said a certain periodicity of susceptibility has been suggested, and seems possible.

Dr. Morris said the idea of *epidemic* smallpox was as absurd as that of epidemic vaccinia.

Hospital Construction and Management.—Dr. Kirkbridge believed permanent hospital buildings offered the best advantages. As to ventilation, pure air could be secured only by fan or fire.

Dr. J. M. Woodsworth (Supervising 'Surg. U. S. Mar. Hosp. Serv.) believed in temporary buildings for all save the administration building. The pavilions should be one-story high, placed North and South and at a distance apart equal to double their height. Open fire-grates should be used for ventilation.

Dr. Ray (Phila.) thought forced ventilation was what is required.

Dr. Ashurst (Phila.) thought objections to permanent hospitals unfounded. One-story buildings, however, are theoretically better.

Causation of Scarlatina, &c.—Dr. C. F. Rodenstein (N. Y.) said that by a series of experiments, he had discovered that in one locality the disease was spread by the drinking water.

(Concluded in our next.)

Analyses, Selections, &c.

Nelaton's Method of Resuscitation from Chloroform Narcosis.—Dr. J. Marion Sims read a most interesting paper on this subject at the 42d Annual Meeting of the British Medical Association held in Norwich, August, 1874, which we regret our space compels us to condense. He says:

Dr. Charles James Campbell, the distinguished accoucheur of Paris, has recently written two papers on anæsthesia in obstetrics,* in which he ably sustains the views long taught by Nélaton, that death from chloroform is due to syncope or cerebral anæmia. And amongst other strong arguments to prove his position, he gives a graphic description of a case of chloroform narcosis, which occurred in my practice in Paris, where M. Nélaton, by his method, unquestionably saved the life of the patient. ***

The delivery of a dead child was ultimately accomplished with instruments. In a week afterwards, the urine began to dribble away, and in a fortnight an immense slough was thrown off. The base of the bladder was destroyed, and the fundus fell through the fistulous opening. The vaginal portion of the cervix uteri and the posterior cul-de-sac were destroyed; and by the reparative process, the cervix and the posterior wall of the vagina were blended into one common cicatricial mass, which was firm, inelastic, and immovable. A preparatory operation was necessary to reconstitute the canal of the vagina up to the canal of the cervix; and by a subsequent operation, to draw forward the flap thus formed, secure it to the neck of the bladder anteriorly, and thereby close the fistula.

*1. Mémoire sur l'Anesthésie Obstétricale; 2. Etude sur la Tolérance Anesthésique Obstétricale.

In this case, as the slightest touch was unbearable, an anæsthetic was indispensable. Dr. Campbell was selected to administer the chloroform. The patient was soon anæsthetised. The operation was begun at 10 A. M.

Many years ago I imbibed the convictions of my countrymen against chloroform in surgery, and have always used ether in preference, never feeling the least dread of danger from it under any circumstances. It is otherwise with chloroform, and in this particular case I felt the greatest anxiety, frequently stopping during the operation to ask Dr. Campbell if all was going on well with the patient. At the end of forty minutes the sutures (twelve or thirteen) were all placed, and ready to be secured, when all at once I discovered an unusual bluish livid appearance of the vagina, as if the blood were stagnant, and I called Dr. Johnston's attention to it. As this lividity seemed to increase, I asked Dr. Campbell if all was right with the pulse. He replied, "All right, go on." Scarcely were these words uttered, when he suddenly cried out, "Stop! stop! No pulse, no breathing." Immediately the body was inverted, the head hanging down, while the heels were raised high in the air by Dr. Johnston, the legs resting, one on each of his shoulders. Dr. Campbell supported the thorax. Mr. Herbert was sent to an adjoining room for a spoon, with the handle of which the jaws were held open, and I handed M. Nélaton a tenaculum, which he hooked into the tongue, and gave in charge to Mr. Herbert; while to Dr. Beylard was assigned the duty of making efforts at artificial respiration, by pressure alternately on the thorax and abdomen. They held the patient in this inverted position for a long time, before there was any manifestation of returning life. My notes of the case, written a few hours afterwards, make it twenty minutes. At last there was a feeble inspiration, and after a long time another, and by and bye another; and then the breathing became pretty regular.

When the pulse and respiration were well re-established, M. Nélaton ordered the patient to be laid on the table. But what was our horror, when, at the moment the body was placed horizontally, the pulse and breathing instantly ceased. Quick as thought, the body was again inverted, the head downwards, and the feet over Dr. Johnston's shoulders, and the same manœuvres as before were put in execution. Dr. Campbell thinks it did not take such a long time to re-establish the action of the lungs and heart as in the first instance. Respiration was at first irregular, and at long intervals; soon it became more regular, and the pulse could then be counted; but it was very feeble, and would intermit.

What must have been our dismay, our feeling of despair, when, incredible as it may seem, the moment the body was laid in the horizontal position again, the respiration ceased a third time, the pulse was gone, and she looked the perfect picture of death? But Nélaton, and Campbell, and Johnston, and Beylard, and Herbert, by a consentaneous effort, quickly inverted the body a third time, thus throwing all the blood possible to the brain, and again they began their efforts at artificial respiration. It seemed to me that she would never breathe again; but at last there was a spasmodic gasp, and, after a long while, there was another effort at inspiration; and, after another long interval, there was a third; they were "far between;" at length a fourth came, and more profoundly, and there was a long yawn, and the respiration became tolerably regular. Soon Dr. Beylard said, "I feel the pulse again, but it is very weak." Nélaton, after some moments, ejaculated, "The color of the tongue and lips is more natural." Campbell said, "The vomiting is favorable: see, she moves her hands; she is pushing against me." Presently, Dr. Johnston said, "See how she kicks; she is coming round again." She was held in the vertical position till she, in a manner, recovered semi-consciousness, opened her eyes, looked wildly around, and asked what was the matter. She was then, and not till then, laid on the table. In a few minutes more, the operation was finished, but, of course, without chloroform. On the eighth day thereafter, I had the happiness to remove the sutures in the presence of M. Nélaton, and to show him the success of the operation.

If the recovery had been complete and perfect with the first effort at reversing the body, there might have been a doubt whether the vertical position was really the cause of resuscitation; but when the horizontal position was again and again followed by a cessation of all evidence of life, and when life was again and again re-established by a position that favored only the gravitation of the blood (poisoned as it was) to the brain, the inference is very clear that death in such cases is due to syncope or cerebral anæmia. Exhaust the brain of blood in any way, and death follows. Fill it speedily with blood again, and life returns.

In January, 1873, I amputated the cervix uteri at the Woman's Hospital, drew the vaginal tissue over the stump, and secured it by silver sutures. The junior house-surgeon gave the anæsthetic—a mixture of chloroform and ether (one part to four). When the operation was nearly finished, he cried out, "The patient has stopped breathing," and immediately added, "She has no pulse." On examining the patient, there was not

the slightest muscular rigidity; there was not the least sign of breathing or of the pulse; she was, to all intents and purposes, dead; and I doubt very much whether she could possibly have been resuscitated by any other method than that of Nélaton's.

I quickly inverted the body, and had it held thus; and then I shook the thorax, agitating the head laterally, so as to add an impetus to the movement of the blood, which, with the body in this vertical position, would naturally gravitate toward the brain; the jaws were held asunder, and the tongue hooked with a tenaculum, and pulled forward; in a few minutes the breathing was re-established, and then the pulse returned; and soon the patient was placed again on the table in the lateral semi-prone position in which all my operations on the uterus are performed; and the operation was finished, but without any more of the anæsthetic.

These two cases comprise my personal experience with Nélaton's method in chloroform narcosis.

The *New Orleans Medical and Surgical Journal* for November, 1873, says: "In the course of an extended experience in the administration of chloroform, it has happened three times to Dr. M. Schuppert, that, to all appearances, the narcotised subject died. *** The method he adopted for resuscitating these patients consisted in reversing the body, either by hanging them up by the feet, or laying them over a bed or table, so that the greater part of the body with the head hung down. In that position, artificial respiration was also tried. In one case, five minutes elapsed before there was a natural inhalation. All of them recovered. Dr. Schuppert believes that in cases of death from chloroform, the primary cause of the cessation of the respiration and circulation rests in anæmia of the brain, and not in impregnation of the blood with carbonic acid."

Another American authority, Dr. E. L. Holmes (*Chicago Medical Journal*, September, 1868), says that whenever there is any failure of the heart's action, as is nearly always the case, the body should be laid at an angle of 40 deg., with the head downwards, so as to favor the passage of arterialized blood to the brain.

I take it for granted that Dr. Schuppert and Dr. Holmes must have obtained their knowledge of this method of resuscitation, either directly or indirectly, from the teachings of Nélaton; for he had for years been in the habit of explaining his method in his lectures and at his *cliniques*, and Dr. Johnston published an account of it in the American papers in 1861. Ten years ago, there was a story prevalent in Paris that M. Nélaton had derived the hint of reversing the body in chloroform-

poisoning from a discovery accidentally made by his little son, then some seven or eight years old. *** A few days ago, when in Paris, I called to see young Nélaton (who is now a student of medicine, and will graduate next year), and I asked him for the facts of the mouse story. He said that when they lived on the Quai Voltaire, the house was infested with mice; that great numbers were caught in traps almost daily; that he was in the habit of killing them with chloroform by covering the trap with a napkin and pouring the chloroform on it. One day, when he had given a happy dispatch to some mice, his father accidentally came into the room, and, seeing the dead mice, he told his son if he would take up one by the tail, and hold it with the head downwards, that it would revive, while the others would not. He did this, and found it was true. And he told me that he had, when a boy, performed the same experiment on mice some forty or fifty times or more, and always with the same unvarying result. He says that he has often heard his father speak, not only of the case that occurred at St. Germain, but of other cases that he had saved in the same way before the time of the mouse story, which dates back to 1857 or 1858.

I believe there has not as yet been a single death from chloroform given during labor; while deaths from it in general surgery occur constantly, and for unimportant operations. There must be a reason for this. I believe that it can be explained only on the theory that death from chloroform is, as a rule, due to syncope or cerebral anæmia. Now, we know that in active labor there can be no cerebral anæmia, for every pain throws the blood violently to the head, producing fulness and congestion of the blood-vessels, thereby counteracting the tendency of the chloroform to produce a contrary condition. It may be said that the recumbent position has some influence in determining the safety of chloroform in labor; and so it has, but it gives no immunity under other circumstances. Chloroform, given intermittently, as in labor, is thought to be less dangerous; but patients in labor are often kept for hours under its influence with safety, and occasionally it is necessary to produce complete and profound narcosis in some obstetrical operations.

In puerperal convulsions, where the brain is believed to be overcharged with blood—and that, too, when the blood is known to be poisoned with urea—we formerly bled the patient, and we do so now sometimes, but our chief remedy is chloroform, which acts by arresting spasmodic movements, and by producing that very state of cerebral anæmia so necessary to a successful result. Whether puerperal convulsions are less frequent in labors under chloroform than in those without it, I do not know.

I believe that obstetrics may take a lesson from Nèlaton's method of resuscitation, by adopting it in cases of threatened death from *post partum* hemorrhage. Let us not be satisfied with simply placing the head low; but let us, in addition to the means usually adopted, invert the body, and throw what little blood there is left in it wholly to the brain. I have never seen a death from uterine hemorrhage; but from recollections of the few alarming cases I have witnessed, I now feel sure that recovery might have been hastened if I had known of and adopted Nèlaton's method of inversion.

Whether death from chloroform is due to cerebral anæmia or not, it is at least safe to adopt Nèlaton's method in all cases of supposed or threatened danger; but I think the safest plan is to relinquish the use of chloroform altogether, except in obstetrics. The frequent cases of death from the use of chloroform in surgical operations that have occurred among us, even of late, should warn us to give up this dangerous agent, if we can find another that is as efficient, and, at the same time, free from danger. Ether fulfills the indications to a remarkable degree.

Book Notices, &c.

"Shadows from the Walls of Death;" Facts and Inferences prefacing a book of Specimens of Arsenical Wall Papers, gathered by R. C. Kedzie, Member of State Board of Health (of Michigan).

The above is the rather sensational title of an interesting and instructive paper upon an important subject. The danger attendant upon the use of paper-hangings colored green with arsenical pigments (Scheele's green and Schweinfurt green—arsenite and aceto-arsenite of copper), is not so well known, either to the profession or to the public, as it ought to be. The State Board of Health of Massachusetts sounded the alarm in 1872, by the publication in its annual report of an able paper "On the evil effects of the use of Arsenic in certain green colors," by Dr. F. W. Draper. The State Board of Health of Michigan now utters a similar warning, through this paper of Dr. Kedzie, and the accompanying book of samples of poisonous wall-paper.

"Perhaps," says the author, "we could not devise a more effectual way to contaminate the air of our houses with a small amount of arsenical dust, than by the use of wall-paper colored

with arsenical preparations. The large amount of surface exposed, the feeble adhesive power of the size by which the pigments are fixed, the frequent alternations of heat and cold, moisture and dryness, by which the adhesiveness of the size is still more diminished, the currents of air always circulating in a warm room; mechanical displacements by sweeping, dusting, etc., all combine to dislodge the pigments from their position on the paper, and to scatter them in the form of a fine dust in the room, and this dust may be many hours or even days in settling. * * * This suspended dust is swept along with the air in inhalation, and is lodged upon the mucous surface lining the nasal cavities, the windpipe and its ramifications. *** This may explain the frequent occurrence of catarrh and bronchitis in those persons who occupy rooms prepared with arsenical wall-paper."

Dyspepsia, neuralgia, pains in the bones and joints simulating chronic rheumatism, headache, general debility, etc., are also enumerated as symptoms which often attend this insidious form of poisoning; their occurrence being readily explained by the absorption of the poison. Want of space, however, prevents our going into a full consideration of the subject, and we content ourselves with the citation of two or three of the cases which are reported by Dr. Kedzie as having occurred under his own observation, or within his knowledge.

1. Dr. J. H. B. and his two boys. The Doctor's bed-room was papered with wall-paper of a grayish color, toned with green, and had a few bright green flowers or leaves. His boys occupied a bed-room next to his, and the door between the rooms was open at all times. The Doctor was troubled with severe pains in the bones, symptoms of chronic rheumatism, and constant cough. The boys became affected with pains and rheumatic soreness. Suspicion was aroused that the wall-paper might be the cause of this illness, and the paper was analyzed, when it was found to contain 5.47 grains of arsenic to each square foot, or six ounces of arsenic on the walls of a single room. *** The paper was at once removed, and the Doctor and his boys have entirely recovered.

2. The children of the Hon. L. D. W. Emma, aged 9, occupied a bed-room, the walls of which were covered with paper of a greenish stone color, with bright bands of green. Soon after occupying the room, she exhibited the following symptoms: Lameness, resembling rheumatism, darting pains in various parts of the body, languor in the morning, feverishness, pains in the head and frontal sinuses, sores in various parts of the body, "faint spells," and great loss of flesh. The best medical advice that could be procured was obtained, but no essential improve-

ment followed. Whenever she left home for a time her health improved, but she relapsed into her former condition on returning home. The paper on the wall was analyzed, and found to contain 4.87 grains of arsenic to the square foot. Emma was removed from the room and entirely recovered her health.

Last fall, the son, Herbert, was allowed to occupy the same room. In a short time all the distressing symptoms which had afflicted Emma, were developed in Herbert. He was removed from the room and entirely recovered.

4 Mr. H. had his house papered with wall paper which contained a considerable quantity of green. Soon after, Mrs. H. and all the children passed into a condition of continued ill health. The time of the commencement of this ill health was so nearly identical in all the cases, and the symptoms were so similar, that Mr. H. was convinced that there was some common cause operating on his family to cause this mysterious sickness; but he was unable to find anything in the condition of his home or its surroundings which would explain it. While examining the report of the State Board of Health, his attention was called to poisonous wall-paper as a possible cause of ill health. The wall-paper in his rooms was analyzed, and found to contain 1.88 grains of arsenic to the square foot. It was at once removed, and Mrs. H. and the children recovered their usual good health.

These cases require no comment. But as *all green-wall papers do not contain arsenic*, it is well to mention the ready method of distinguishing those that do. "The green arsenical colors are readily soluble in ammonia water. If a little ammonia water poured on the paper discharges the green color, or produces such a change in the color as indicates the removal of green, the paper should be rejected, as it probably contains arsenic. To identify the presence of arsenic in any paper, wet the paper with ammonia water, pour off this water on a clean piece of glass, and drop into it a crystal of nitrate of silver, or a small piece of lunar caustic. If a yellow precipitate forms around the crystal, it indicates the presence of arsenic."

L. S. J.

Editorial.

VIRGINIA STATE BOARD OF HEALTH.

It is sincerely to be hoped that the Virginia Legislature, now in session, will display some appreciation of the nature of a State Board of Health, by making an appropriation to enable

the Board to carry out the objects contemplated by its appointment. The Board has been in existence now for three years, and has kept up its organization and prosecuted its work to the greatest possible extent, under the circumstances, without any compensation. It is time, if the Legislature attaches any value to this Board, that something was done to foster and sustain it. The medical profession should create a sentiment that shall be brought to bear on our representatives, in determining them to grant such an appropriation as will at least defray the necessary expenses in keeping the Board in working order.

The subject is ably treated by Dr. Tebault in his Presidential address before the Medical Society of Virginia, held in Abingdon, and to that address we refer our readers for further information touching the value and importance of the Board to the State. It is high time that Virginia had redeemed herself from the positive odium of having, for so long a while, neglected this great State interest.

VIRGINIA STATE BOARD OF HEALTH.

Another Legislative enactment that Virginia demands of the General Assembly is the passage of the bill regarding the establishment of a State Board of Medical Examiners, before whom all future candidates for practice of medicine shall pass satisfactory examinations as to their qualifications. This is not a measure of professional interest alone, but one that even more directly affects the welfare of the people at large. It is a burning shame that here in Virginia, where respect for proficiency in science, law and letters has ever been a characteristic of its citizens, *license is given to any one* who merely pays the ordinary license fees, to *trifle* with the health and lives of the people. Who denies that such trifling is being carried on? Who does not personally know of some one that is presuming to perform the responsible duties of physician who scarcely has sufficient qualifications to occupy the humbler position of an ordinary nurse? Even the possession of certain college diplomas is no longer a mark of proficiency, for, disgraceful to them as it is, the fact must be acknowledged that there are Faculties which are careless in their examinations, unduly liberal in their

bestowal of honors, and treacherous to the interests of the people among whom their graduates go out to practise.

It needs no argument to impress upon the intelligent mind the importance of this measure. The Medical Society of Virginia has approved of it (as also of the proposed Board of Health bill) by unanimous votes when the subject has been introduced, and has further committed itself by the appointment of a committee to urge legislation. This committee is earnestly at work to promote the objects for which they have been appointed. But let the members of the Society remember that they likewise have a responsibility; indeed no one is without responsibility in such matters. Let the profession at once instruct the people and Legislature as to their interest in the success of the proposed measures; for we are satisfied that the failures heretofore to secure the proper enactments have been owing to want of due information as to the purpose in view. Other States are adopting similar measures, and Virginia should not be behind in this grand advance.

The address of Dr. Harvey Black at the fourth session of the Medical Society of Virginia impresses the importance of this subject so admirably and forcibly that he must be blind indeed who does not appreciate the irresistible conclusions at which he arrives.

Our Thanks are hereby returned to Messrs. Wm. H. Smith & Co. for one of their improved "pocket inhalers." The improvement in the instrument just received consists in its being made of hard rubber—thus making it less apt to be broken than the glass inhaler which was acknowledged in the August number.

We invite special attention to the advertising pages of this issue.

Died at the University of Virginia, November 5th, 1874, Mrs. Cabell, wife of Prof. James L. Cabell, M.D.

Died at Hampton, Va., November 10th, 1874, Dr. Mallory A. Shield from an overdose of chloral. He leaves a widow and a child to mourn his loss.

Virginia Mortuary Statistics for November, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.					
Health Officers.....		Dr. J. G. Cabell.				Dr. W. M. Wilson.				Dr. R. S. Payne.					
		White.		Colored.		White.		Colored.		White.		Colored.			
Population.....		33,452		27,213		12,000		8,000		6,500		6,500			
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
Number of deaths.....		29	30	31	39	9	7	12	16	5	2	5	11		
Number still born.....		7		9				2		2		3			
AGES. Ages unknown not calculated.	Under 1 year.....	16		20		Color not given, 11				Color not given, 7					
	" 3 years.....	7		13		" " " 3				" " " 1					
	" 10 ".....	5		4		" " " 1				" " " 1					
	" 20 ".....	2		2		" " " 2				" " " 1					
	" 30 ".....	5		7		" " " 3				" " " 3					
	" 50 ".....	13		11		" " " 8				" " " 2					
	" 70 ".....	7		9		" " " 8				" " " 4					
	" 80 ".....	3		3		" " " 4				" " " 1					
	" 100 ".....	1		1		" " " 1				" " " 2					
	Over 100 ".....	...		...		" " " ...				" " " ...		
Most frequent Causes of Death.	Accident, Wound, &c.....	2		2						1				1	
	Apoplexy, Cereb. Hem'ge, &c.....	4		1		1				1				.....
	Bright's Disease.....	.....		.....		1				1				.....
	Cancer.....	1		1		1				.....				.....
	Cholera Infantum.....	3		.....		.....				.....				1	
	Congest. Bowels, Lungs, &c...	.....		.....		.....				1				.....
	Convulsions.....	.....		4		.....				1				3	
	Consumption.....	9		14		3				5				1	
	Croup, Membranous.....	.....		3		1				.....				.....
	Dentition.....	.....		3		1				.....				.....
	Diarrhoea, Dysentery, &c.....	5		1		.....				.....				.....
	Diphtheria.....	8		5		1				.....				1	
	Dropsy.....	1		1		1				.....				.....
	Enteritis, Entero-Colitis, &c.....	.....		2		.....				1				.....
	Fever, Congest. Pernicious, &c	.....		1		2				.....				.....
	" Puerperal.....	.....		2		.....				.....				.....
	" Typhoid.....	2		.....		1				.....				1	
	Heart Disease.....	.....		.....		.....				3				.....
	Hepatitis.....	.....		9		1				.....				1	
	Inanition, Old Age, &c.....	5		1		.....				7				.....
	Meningitis, & Cereb. Spin. Men	1		1		.....				.....				.....
	Paralysis, & General Paral.....	.....		3		.....				1				.....
Pneumonia.....	2		.....		.....				4				.....	
Pulmonary Apoplexy.....	.....		.....		1				.....				.....
Rheumatism.....	.....		1		.....				1				.....	
Tonsillitis.....	.....		2		.....				.....				.....
Trismus Nascentium.....	1		1		.....				.....				.....
Whooping Cough.....	.....		.....		1				1				1		
		Census taken in February, 1874.				Population is esti- mated.				Population is esti- mated.					

Dr Hays

VIRGINIA MEDICAL MONTHLY.

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Original Communications.

ART. I.—*The Residence and Agencies of the Passions.* By
GEORGE BAYLES, M.D., New York—Concluded from p. 543.

Love, in its largest acceptation, is an attraction towards the beautiful, the good, the true, with a lively desire of possession. God, the perfect being, is all love. He has diffused love through all nature, and he has imposed upon man the emanation of his divinity, the law of love. A direct emanation from the divine love is the love of humanity. The more there is of the one the more there will be of the other. The impress of the divine love upon our natures likewise accounts for our love of country, our love of Nature, of art, and of science. This love-principle of our nature draws the man towards the woman, and the woman towards the man, for each discerns the desired perfection only in union. Conjugal love in its full fruition begets love of family, which is a harmonious whole of father and mother, brothers and sisters; and overruling self-love, is apt to spring, as a morbid growth, out of these relations. If these different forms of love become unduly exalted, they may engender religious, political, and patriotic fanaticism—likewise nostalgia, intellectual mania, unbridled love, parental blindness, and overweening egotism.

Even as the light in traversing the prism is decomposed into bundles of different colors, so love, a very complex passion, is separated by observation into many elements. For reasons, especially physiological, we must occupy ourselves chiefly with the consideration of love as it exists between the sexes.

Love thus considered, is that peculiar affinity which attracts one to the other, enchains them by the sweet sympathies of the

soul and the irresistible attraction of the senses. The divine object of this peculiar and divinely appointed affinity is the perpetuation of the species. Man shares this endowment with the lower animals, but his unshared intellectual endowments have refined the passion when the good bias prevails, and debauched the passion when the evil prevails. "The union of man and woman has not alone for its end the rekindling, without cessation, of the flame of life; it ought still more to associate together souls; to put in common the diverse faculties of each being; to complete one by the other; and to contribute in that way to their happiness and their moral perfection. Thus it is necessary that love should partake more of the soul than of the body. Sensual love—so transitory, so monotonous—ought to be controlled and purified by love of the soul, so durable, so varied. One should be made subordinate to the other. Then we shall have modesty and chastity." Moral love, not dependent alone on the passionate senses of youth, but attaching itself to the soul, can alone remain, and remain faithful, because the soul alone can remain youthful and beautiful." "It seems," writes Pascal, "that we have entirely another soul when we love—we are so elevated by this passion." Love called Platonic, that is to say, separated from all sexual desire, may sometimes exist, but it requires much calmness of the senses and purity of heart. The common characteristic action of love is to seize upon the soul, agitate it, hold dominion over it, notwithstanding the capture may, at times, be stoutly resisted.

Among the phenomena of the passion may be mentioned the fact that love can break forth suddenly at first sight—a look, a word, has sufficed. We would naturally call this *fascination*, but it is nevertheless love in one of its varieties. Another phenomenon is the sympathy which often becomes established between two beings opposed in temperament, tastes, and general sentiments, who by their contrasts become harmonious and mutually agreeable. Another is, that if love is developed at an advanced age, that is, after the period of buoyant youth is passed, it is less demonstrative and violent, more tenacious and of longer duration. The temperaments most sensitive to love impressions, of any type, are the sanguine and the nervous. The lymphatic temperament is the least disposed to the trans-

ports of the passions. Women are supposed to be more impressionable than men. I will grant that they are generally more sincere and self-sacrificing in their treatment of the tender passion. Another phenomenon is, that the more chaste the soul the more easily love seizes upon it, and often burns there with a devouring fire.

The habit of libertinism in either man or woman extinguishes true passion, and substitutes a rage after the gratification of a series of mere vulgar animal propensities. Still another phenomenon is, that the young love at first without knowing whom they love. The man loves the woman before loving one alone. He seeks them, indeed pursues them. The wonderful physiological phenomena manifesting themselves in the organism at the epoch of puberty institute the period when every variety and phase of love, from the innocent callow fancy to the crime-stained act of gross sensualism, can have a possibility without special precocity. All that goes before is (if of the sensual order) rudimentary and imperfect, and hinders Nature in many of her wisest and most conservative operations. It should surely be suppressed in its earliest manifestations. The sentiment of love previous to actual adolescence should have its field of operations wholly within the sphere of domestic and nursery influences.

When love has been excited in a man for one of those whom God gave to man to be a help meet, it is easily discovered. The senses apprise the soul of an object which the soul finds agreeable, and at once, in sentiment, appropriates; then the soul apprises local parts and organs, over which it exercises control, of the need it has of their favorable demonstrations, by which we mean the actions calculated to win the admiration and favor of the one loved. The soul shakes up all its faculties—the most lively and the most powerful, the most delicate and the most serious, the imagination, even the reason. In the organism it is felt to the very depths of life, and influences the most important functions.

Remarkable changes take place in the character, actions, habits, and in the health of the man who loves. To his gaiety or his habitual heedlessness succeed, all at once, a tender melancholy and prolonged reveries; his bearing and physiognomy are

in harmony with his most serious thoughts. He is studiously reticent about the one who has enchained his affections. Let her name be spoken, and changes of countenance are electrical in their suddenness. He can perceive in her no faults, or if there are obvious defects, they simulate virtues and graces—they are so truly becoming to her. Everything customary and habitual to the man becomes altered. His toilet, his recreations, his hours of sleep and business, his devotional exercises, his companions, and the former objects of his tenderest solicitude, all, all are changed. The general effect and the effects in detail of all this sudden transformation upon his organism and upon the tone of his social and domestic relations, are unquestionably very energetic and comprehensive.

Under the most favorable circumstances, man, when in love, cannot escape what has been Cupid's forfeit from time immemorial. What, therefore, must be the fate of the man who allows his love to become unbridled? What must be the forfeit to Satan and to death of unlicensed and exaggerated passion? When love becomes sensual and unbridled, the physical effects are observed chiefly in the following ways: The appetite is diminished or lost, the countenance grows pale or sallow, the eyes are sunken, the body becomes emaciated, the vital forces rapidly decrease. The pulse is feeble, small, irregular, during the absence of the person loved, but in her presence, or when hearing from her, it becomes strong and tumultuous. There are, on the one hand, violent palpitations of the heart, which dispose to hæmorrhages; on the other, an agonizing constriction which oppresses the chest. Chills alternate with fits of heat, sleep is not restful. These conditions, and many others which might be mentioned, derive their evil tendencies from their frequent repetition, and their tendency also to become established, to the utter wrecking of all organic and systematic harmony.

When irregularities of action are the rule, what can result but chronic disease, which will confirm and fix the habitual perversions as by a seal of judicial sanction. The moral nature is not less affected than the physical. Intelligence deteriorates into stupidity. Love (of the kind in question) supersedes every other sentiment and thought. The sexual lover is, in no inefficient sense, a monomaniac, with his fixed idea, his delirium of

passion, his false conceptions, and his perverted judgments. He is perverse and intractable, negligent of affairs the most serious, contemptuous of honors, position, riches. He is heedless of friends and good counsel, disrespectful to parents, and often cruel and brutal to them, blindly obedient to the object of his passion, who subjects him to every moral indignity. The moral lesions, so to speak, become the foster parents of criminal predispositions, and any overt act of crime may be committed with little reluctance when circumstances lead the way.

Crime in the moral world is the equivalent of confirmed chronic disease in the physiological domain. The stain of a crime upon the soul is as indelible and permanent as the chronic physical disorder, which is incurable. In the person of the inveterate sensualist, the body is blasted, and the soul in all probability damned, certainly greatly imperiled. Surely the badness of such a state has no counterpart unless in the spirit and person of the very "Prince of Darkness." It is almost needless to say that the subtilty of the Devil is reproduced with marvelous success in these wanton devotees of sensual and sexual intoxication. They can come in the guise of angels of light and allure many, very many, to their ruin. It is their policy, their chosen avocation, their sworn purpose, and nothing, not even crime itself, can balk or turn them from their purpose. Their presence is social poison, their machinations social ruin. They are skillful in deceit, and elude much suspicion. Their devilish purpose is accomplished often long before one thought of its possibility enters the heads of the thoughtful and discriminating. They are social upas trees, sending their unconscious victims by scores into the valley of the shadow of death, both physically and morally.

Climate and manners are not without their influence on the varied forms of love. Passion shows itself burning and cruel in Spain, voluptuous and lascivious in Italy, lively and fickle in France, tender and sentimental in Germany, melancholy and calm in England, cold and brutal in Lapland. Love, when pure, is the sun of the soul; it warms and vivifies all our being. It has been seen to cure a number of physical maladies and a number of moral infirmities. It is the exciting, stimulating remedy, *par excellence*, in affections of languor and consump-

tion. You will be taught, in your lecture and clinical course, what ills arise from the excesses which even a pure but intemperate love sometimes engender. You will learn of hysteria spasms, fainting fits, neuralgias, hypochondria, melancholy, chlorosis. All these are dire neuroses of a type depending upon exhaustion, and they are as often rapid and suddenly overwhelming as slow and progressive. All the diseases of the genito-urinary organs can, and in a large proportion of cases do, arise from untempered venereal desires and performances, under the inspiration of ardent passionnal attraction. The role of ills attributable to thwarted love is almost beyond enumeration.

The condign disaster to mind and body under the malign influence of jealousy is enough to astonish the thoughtful. There is no one passion that has been more fruitful of atrocious and unblushing crime than jealousy. Jealousy may be spoken of as a passion, having an individual identity, because, fungus-like, it rears itself upon the grave of love. Thwarted or jealous love has for its immediate effect all the symptoms of dyspepsia. What evils of a moral and physical nature can flow from dyspepsia, you will learn to your astonishment before you have graduated from your medical school. From this state to the most grave affections there is only one step. Tuberculosis is a most faithful follower of dyspepsia.

In certain cases thwarted love can create acute diseases. These are chiefly of an order characterized by mental phenomena. We observe an ambitious monomania in those who are swayed by ideas of greatness, whilst genital furor shows itself in those unhappy persons who are only impelled by the imperious desire of the amorous propensities. Jealousy engenders a sort of furious madness which degenerates into mania and even dementia.

From the French criminal reports, the following is a summary of crimes, outrages, suicides, murders, and cases of mental alienation, caused by the erratic passions for the last twenty years:

“Of 1,000 crimes, 82 are due to adultery, 72 to seduction or concubinage, 46 to frustrated marriage 31 to jealousy; of 1,000 crimes due to the amorous passions there are reported

230 poisonings, 400 assassinations, 220 murders, 82 involuntary homicides, 70 incendiarisms; of 1,000 suicides, 106 are due to an unhappy love; of 1,000 cases of mental alienation, 86 are the consequence of thwarted love."

Those who abandon themselves to the practice of sensuality expose themselves to the gravest dangers from extrinsic sources, and great is the number of diseases which may attack them. Syphilis stands pre-eminent among these disorders of the baser sort. Under the name of syphilis are comprehended innumerable morbid affections of a specific nature produced by a contagious virus. By reception into the blood or inoculation, the poisonous principle has the power of augmenting its volume and potency until the whole system is tainted. Thus a bias for irregularities of function, extravagancies of growth, unlimited degenerations, and obliquities of sensational impressions are given, to say nothing of the transmissibility of this morbid bias to posterity. To these disgusting lesions of body add the tortures of soul, the agonies of remorse, the concealed despair; add also the sum of the sufferings produced by the surgeon's knife; the actual cautery; the escharotic, stimulating, and constringing applications; the systematic deception of relatives and friends; the sequestering within hospital asylums; and the absolute loss of self-respect, though a remnant of tawdry pride may linger for a time. After all this comes hypochondria, and a terrible morbid anxiety lest an apparent cure may be only a lull in the active symptoms, which commonly, indeed, it is. Then follows renewed, costly, and useless treatment, which ends in making the patient bedridden or otherwise a wreck. Unskillful treatment, personal inexperience, indifference, excesses, chagrin, depression of spirit, only increase and aggravate the disease. With a constitution undermined, venereal cachexy appears—most deplorable of conditions. With a syphilitic diathesis once established, the victim is exposed to the attacks of grave diseases—epilepsy, chorea, mental alienation, paralysis, phthisis, chronic intestinal relaxations, etc. Among the metamorphoses of syphilis we find migraines, headaches, neuralgias, rheumatism—affections which occasion violent sufferings of a desperate obstinacy. Lugol claims that the syphilitic condition is one of the most common causes of hereditary scrofula. I am not prepared to guide your opinions upon that point.

Aside from the enormous dangers of syphilis, there are special dangers in libertinism that arise from inherent personal causes and due to venereal excesses. The seminal secretion is the most precious secretion that the body elaborates. It is a direct product of the blood in its purest form. It has a responsible office when rightly directed. It is a fearful prodigality that can tolerate its waste. Any misdirection in its use, according to the scheme of Nature, is a wanton waste. To waste at all is to disobey Nature. To waste, in reckless prodigality, is not only to abuse Nature, but to defy her. All the evacuations of the humors, save in the case of the seminal fluid, are accomplished with ease in a state of perfect health, without reaction upon the organism. In the emission of the seminal secretion, however, nothing less than a general shock, a convulsion of all the parts, a temporary suspension or excessive acceleration of every correlative vital function of the body, especially of the cerebro-spinal class, is a necessity and an invariable occurrence. The ancients called coitus *epilepsia brevis*. Haller says that "it is a very violent action analogous to a convulsion, of the epileptiform variety," which consequently enfeebles considerably and injures the whole nervous system. We ought not, then, to be surprised that the physiological act requiring so great an expenditure of vitality must be injurious in the highest degree when it is reiterated abusively.

A peculiar character of the diseases which have their origin in venereal excesses is chronicity. They progress insidiously and slowly; they profoundly alter the organic liquids and solids. The digestive and nutritive functions are those which are first assailed; then, according to the natural temperament and predisposition, come troubles in the circulatory system, and the genito-urinary apparatus, or in that of innervation. When the digestive function is disturbed, other functions of the organism very soon become altered. Nutrition languishes, the humors become impoverished, the constitution is threatened by the gravest maladies. Individual predisposition, acquired or hereditary, engender for each a series of peculiar ills. In some the debility bears chiefly upon the pulmonary organs. Phthisis is of all the grave maladies the one which venereal abuses provoke the most frequently. Portal, Bayle, Louis, say this distinctly.

Another large class of cases will be found to be of the congestive order, which predispose to apoplexy, cerebral softening, progressive general paralysis, hypertrophy of the heart, dilatation of the cavities, aneurism.

Much has been affirmed and taught by reliable observers upon these points. French medical literature abounds with the most startling illustrations. Chronic diseases of the brain, particularly of the cerebellum, are frequently developed in libidinous persons. Phrenologists tell us that the reproductive instinct is seated in the cerebellum. Epileptiform convulsions, partial or total loss of vision, and imbecility, are the ultimata of unrestrained excesses under certain conditions of age, associations and temperaments. *Tabes dorsalis*, coming from venereal excesses, is not an uncommon disease. Consumption of the spinal marrow means the gradual withdrawal and destruction of every physical qualification and comfort that makes life enjoyable, and the substitution of misery beyond the power of language to describe. All the diseases of the genito-urinary apparatus, in both sexes, among which may be enumerated morbid exaltation of the venereal appetite, discharges and strictures of the urethra, hemorrhages, ulcers, polypi and cancers, though often results of uncontrollable causes, are, in the large proportion of cases, the direct result of shameless abuse of sexual prerogatives. Also from the same cause we have in man morbid priapism, impotence, and involuntary seminal losses, and in woman *furor uterinus*, sterility, and abortion. In both sexes alike, again we have nephritis, cystitis, incontinence of urine, local neuralgia, and all the forms of syphilitic lesion. This list can be indefinitely extended even to lower and grosser forms of disease, but our purpose is served by directing attention to the main results or agencies of ungoverned passion of the type called love.

The numerous lanes and byways of medical experience are causes of astonishment even to the gray-beards of our noble calling. Nature, stultified and defeated in the first of her objects, can be rudely contradicted and frustrated in her second, viz: that of conception and reproduction. What evils flow from wanton tantalization and over-excitation, on the one hand, and from a deliberate cheat on the other, is a chapter of which

you will find a hint sufficient at the present time, if you wish to be spared the recital of a multitude of painful facts that at best would begin and end with their simple enumeration in these lectures. The organs of special sense are the seats of specially virulent activity in the disasters which follow Nature thus tantalized, defeated, and disgraced. Diseases of the eye from these potent causes form so large a list, that it is little wonder that ophthalmology forms so important a specialty in medical science. Abuses of the pleasures of venery predispose, in the case of the eye, to blindness by amaurosis. The retina and optic nerve gradually lose their sensitive faculty, which ends by being extinguished in consequence of asthenic debility, the same as in old people.

In finishing what I have to say about the passion, love, in its several manifestations and degrees, I would refer you for information, full of eloquence on the ravages of debauchery in society, to M. Duchâlet's *Report on Prostitution in Paris*, made to the Board of Administration of Public Health in 1857.

I think we will find that the amorous passion is by all odds the representative emotional neurosis in point of force, volume, and extent of ramifications. Seeking, therefore, the etiology, prognosis, and treatment of its lesions is seeking, with almost sufficient directness, the etiology, prognosis and treatment of nearly all the other essential passions. Perhaps there is no fact in physiological history more patent than that certain admixtures of temperament on the one hand, and certain departures from a healthy and temperate use of natural gifts and privileges on the other, originate unsound and deficient offspring; and it is to this fact we owe the infirmities with which many persons are born into the world. Blindness, deaf-muteness, and idiocy, with all the grades of long and short-sightedness, hesitancy, or stammering of speech, feebleness of intellect, or want of balance of mental powers, are so many indications of defects in the combination or physiological adaptation of parents. Again, take the mental nature with all its obliquities and perversities, its waywardness and infirmities, its eccentricities and oddities, and it is impossible to estimate the resulting effect of combination and defective training upon each new generation. Where there is a union of physical and mental imperfections in the same individ-

ual, as in the case of one whose appetite of amorous indulgencies has been unrestrained, and nature has resented the same in ways already described, is it not reasonable to anticipate the extravagance and excess in certain directions, and a corresponding deficiency or weakness in opposite directions? Where there is a union of parents each with qualities that do not react upon and check each other, but are inharmoniously developed, is it not reasonable to expect in the offspring at least an equal departure from a normal standard?

There is a passional offshoot from that greater generic class of passions relating to appetites for sensual indulgence, which offshoot or derivative gains the proportions of a great master passion almost equal to the erotic passion in prevalence and tendency to produce morbid results. I refer to the passion for *alcoholic stimulants*. This passion can range anywhere, from an æsthetic taste concerning the wines on our tables to the raging thirst for liquor in the demon-bound victim of chronic alcoholism. Here is a passion for self-indulgence grown up from a simple preference for the flavor of this or that brand of wine, kept for the most genteel of uses, to the monstrous proportions of a demoniacal lust for anything that will intoxicate and render the senses and the intellect insensible to the reproaches of an outraged soul. Hereditation has often to do with this also.

The existence of a predisposition to diseases is as familiar to the people at large as any other fact in the natural history of the race. It is a part of every family record and is recognized as a common belief; and why it should not be admitted in connection with this form of disease it is difficult to conceive. The transmissibility of an alcoholic predisposition, born of the augmented parental indulgence in the simple passion of pleasing the palate, or satiating the appetite, is as clearly proved as the transmissibility of syphilis or scrofula.

Intemperance is a disease, i. e., it becomes a disease, after reaching that state wherein the potency of the will is null and void. Inebriates, therefore, should not be made exceptions to the ordinary rule as it relates to the entire class of invalids. If insanity is a recognized disease, surely intemperance is so also.

What has been said about intemperance and the use of alcoholic drinks, may be said with an almost equal measure of truth

of the *opium habit*. This may be more limited in point of prevalence, and less dangerous to society at large, but in point of disastrous results to the individual, it is commensurate with those of alcohol. It is probably more certainly soul-destroying.

The passions under any form may usher in by their intensity that intellectual alienation which we call insanity. Insanity may, therefore, be regarded as among the commonest as well as direst of the agencies directly attributable to the passions. If you are inclined to take issue with me, when I say *among the commonest*, I will only urge in defence, that there are degrees of mental delinquency or obliquity of intellect too slight perhaps to be ordinarily apparent while still they exist in our usual domestic and social spheres; and yet that degree, or fraction of degree (if you prefer), is true elementary and precursory insanity.

The sense-impressions which arouse the passions, which in turn debase the body and derange the intellect, are too much, in modern times, begotten of our intensity of living. The haste with which we live is not merely an impulsive, erratic, short-lived haste, but it takes the form of method, of business system, and has infused an impetuous inspiration into the whole texture of society.

Mortuary statistics have exhibited a large increase of diseases of the brain and nervous system during the last generation, so that we are justified in assuming that there has been an increase, year by year, of nervous susceptibility in our race, which is clearly exhibited in the increased intensity of American life. The pressure upon the brain of children by a forcing system of education; the subsequent tax upon the supreme nervous centre in the struggle for wealth, power, or position; the unhealthy rivalry for display; the fostering and inevitable exaltation of the passions; and all the excitements which produce the wear and tear in our life—are so many means of exhausting nervous energy, and producing a condition that tends to irreparable mischief. If there is no convenient or practicable way to modify the intensity of our business habits or social exactions, surely the least we can do is to suppress the violence of our acquired and constitutional emotional tendencies.

Until the will is destroyed by abuse and excesses, it is strong

enough to cope with every truant passion, and ought, in the spirit of simple self-preservation, so to do. Whatever evils are within the dominion of the will ought to be averted, or at least controlled. There is much indeed in our every-day life that the will is subject to rather than the master of, and this becomes the natural penalty of living. Unbridled desire is not such a penalty, unless the will has been allowed to relax its authority. When the will has been shackled through our own carelessness, then come the additional penalties—the penalties of bad living.

We have reached a point in this review of current physiological thought concerning *the residence and agencies of the passions* wherein we may call the sketch completed by having succeeded in defining the one and contemplating in outline the others.

You have discovered that the subject has an amplitude that would give scope for thought and observation to the most devoted students of psychology, and that science is related to the phenomena of organic life. I trust that among you there are those who will be enticed into this fruitful field for new and useful investigation. See the need for it in the bewildering instances of erratic emotional and passional condescension so rife in our day, even among the shepherds of Christ's spiritual fold. See the need for it in the causes and consequences of the new free-love doctrines, which have their advocates and followers within the limits of our own home neighborhoods. See the need of it in the case of the well planted and well watered sect of so-called spiritual lovers—the heaven and earth defying Mormons. See the need of it in our systems of education, embracing the much discussed and doubtful theory of the co-education of the sexes under identical forms and opportunities of instruction. See the need of it through the manifold practices of fashionable life and fashionable dissipation. See the need of it in the alarming prevalence of the passion for stimulating pleasures, absorbing pursuits, exciting sports, and the insane hazard of fortunes in betting and the games of chance. See the need of it in the glare of that accursed effulgence which lures its thousands and tens of thousands to destruction—the intoxicating draught. It is nothing to us how much worse or better the world is now than it used to be. We can see for ourselves that the world of our

day has an ocean of human misery which is within the power of pure humanity successfully to alleviate and remove. Every cognate science of our grand-system of humanitarian science, called the medical profession, is working up the problem of relief for mental, moral, and physical ills, and for you the duty is plain, viz: to detect the sufferers and apply the proper science-born remedies.

"Let us take warning of the perils by which our general sanity is menaced in these latter times by our over-civilization, by our partial and unbalanced education, by our neglect of physical culture, and by the decline of our religion from beliefs and standards which mould the character and form the life, which 'bind back' the soul to the laws of its own existence and its God into 'feelings' and 'experiences,' which intoxicate the imagination. We need the rude shock and surprise of some notable occurrence to show us where we truly stand!"

In conclusion, permit me to quote a brief extract from the recent address of Prof. Tyndall before the British Association. He says: "Mr. Spencer at one place refers to that most powerful of passions—the amatory passion—as one which, when it first occurs, is antecedent to all relative experience whatever; and we may pass its claim as being at least as ancient and as varied as that of the understanding itself. Then there are such things woven into the texture of man as the feelings of awe, reverence, wonder—and not alone the sexual love just referred to, but the love of the beautiful, physical and moral, in nature, poetry and art. There is also that deep-set feeling which, since the earliest dawn of history, and probably for ages prior to all history, incorporated itself in the religions of the world. You who have escaped these religions in the high and dry light of the understanding may deride them; but in so doing you deride accidents of forms merely, and fail to touch the immovable basis of the religious sentiment in the emotional nature of man. To yield this sentiment, reasonable satisfaction is the problem of problems at the present hour."

The Birth-Rate in London is said to be one in every five minutes, and the *death-rate* one in every eight minutes.

ART. II.—*A Case of Congenital Want of the Iris in both Eyes, with Perfect Power of Accommodation.* By GEORGE REULING, M.D., Surgeon to Maryland Eye and Ear Institute, Baltimore.

Before entering upon the description of our case, it is of the utmost importance to recall to mind the anatomical condition and development of the iris and the neighboring structures, as well as to consider the physiological part the iris plays in the accommodative process.

The human iris commences to form during the fourth month of pregnancy. At the edge of the fœtal choroid, at which the ciliary processes have already begun to form, and very near the latter, about this period of intra-uterine life one can perceive a closed band, narrow and grayish, almost perfectly transparent, the posterior surface not yet being covered by the dark pigment which we know as uvea. This ring is the foundation, so to say, of the future iris. Anteriorly it soon takes on a bluish appearance, caused by the uveal pigment, which now begins to be developed and to be reflected through. Very soon after the first appearance of the rudimentary iris, the tensor of the choroid is formed, which is at first a very narrow circular band all along the sclero-choroidal border. Soon, however, gradually, in proportion to the growth of the iris, it extends anteriorly and posteriorly, thus becoming a point of external support to the iris at the now very prominent border formed by the junction of the sclerotic with the cornea. After the tensor has advanced forwards, it inclines, so to speak, directly against that point at which the ciliary margin of the choroid terminates in the commencing ciliary processes, in such a manner that it forms a right angle just at that spot where the margo ciliaris of the choroid terminates in the ciliary processes, and, describing a sharply defined margin, receives the ciliary border of the iris within it. It is thus that, on its internal surface, the choroidal tensor gets to be a secure and intimate means of communication between the choroid and the iris, whilst externally it is connected with the advancing margin of the sclerotic.

Let us now go back to the consideration of the formative process of the iris. As the iritic parenchyma progressively devel-

ops, the pupil, which is not quite circular, yes, somewhat oblong on the narrow side of the just formed foetal iris, and which at first is very large, gradually becomes smaller. The connection existing between the ciliary edge of the iris and the choroidal border is gradually broken by means of the condensation of the choroidal tensor and the increasing mass of the uveal pigment, and very soon the tissue-like connection disappearing, the loose communication gives place to an immediate junction of the iris and the choroid. The pupillary membrane which afterwards is formed, renders the junction still more permanent. This membrane arises from the surface of the fully developed tensor choroïdæ, lies on the anterior face of the iris, and is transformed into the membrane of Zinn. The iris, therefore, is firmly fixed at its ciliary margin, at the edge of the choroid, as well as at the tensor.

In the child, born at full term, the ciliary border of the iris is perfectly smooth, and is attached to the tensor of the choroid. As the iritic ring grows more and more in breadth, causing the pupillary space to become narrower thereby, the anterior surface of the iris is seen to be gradually the seat of several circular bands. These, similar in appearance to the rings on the cut trunk of a tree, represent the rudimentary circular fibres of the iris. The radiating muscular fibres supersede these circlets, which, in fact, become limited to the pupillary edge of the iris. While the muscular fibres proceed thus towards their perfect formation, the iris develops, becomes broader, and the stroma, as well as its anterior and posterior surfaces, become filled with pigmentary granules and cells. The not yet lost membrana pupillaris arises from the tensor of the choroid, passes over the iris to the pupil over which it spreads, concealing it completely for a certain time. Histological examination of the iritic parenchyma at this time brings to light closely aggregated cells and uneven fibres possessing the characteristics of and belonging to the family of the cellular tissue. The vessels of the iris are derived from the ciliaries, whence they pass in the form of the circular branchlets towards the pupillary edge. It is not our intention to enter into the minute anatomy of these blood-vessels. Our object is to consider the iris, as a whole, in its relation to those neighboring structures which take part in the accommodative process.

The ciliary processes are covered at first by a sort of pigmentary membrane, which, when the iris has begun to form, leaves its original seat, passes on to the posterior face of the iris, becoming what we know as uvea.

The *membrana Zinnii* (zonula of Zinn) is formed from the *membrana pupillaris*, which, lying in close contact with the iris, grows into it, if we may use the expression, at several points, whilst at others the connection between it and the iris is but a loose one. Thus it is that rugosities arise, which finally form a whitish network, the perfect development of which gives the finishing touch to the formative process going on in the foetal iris.

If we recall what has just been said, we will find that the formation of the iris depends upon and arises entirely from the choroid; that a normal or abnormal state of the iris is caused by a similar condition in the choroid. The ciliary processes are the "go-betweens" (so to say)—the assisting organs in all these relations between the two membranes. Von Ammon and many others have conclusively proven the fact that structural lesions of the choroid occasion similar affections in the ciliary processes, and that these again exert a decided influence upon the structure of the iris.

In the case before us, one, be it remembered, of total absence of the iris, we must take it for granted that the ciliary processes in the entire area of the ciliary body were so imperfect in structure, that the iritic ring could not be formed at their anterior extremities, though indeed both uvea and ciliary ligament were present in toto.

Let us now enter upon the description of our case: Miss S. S., of Washington (D. C.), 17 years of age, a pupil of a Baltimore educational institute, sought advice because of some ocular trouble she usually experienced after long-continued reading. On an examination, I found the iris to be entirely absent from both eyes. The lens, which was clearly visible, was crossed here and there by opaque, sharply defined, for the most part linear striations, which, as a general thing, followed the direction of the lenticular fibres, and but slightly interfered with the power of sight. The lenticular edge was entirely visible, the lens was in its normal position, the retina and the optic nerve, as well as the blood-vessels, perfectly normal. The eyes were emmetropic. No. I. Test-type of Snellen was read at a distance

of 10". S= $\frac{2}{3}$ R., & $\frac{2}{4}$ L. There was slight insufficiency of the recti, righted by means of a 4° prism. The fine black circle surrounding the periphery of the lens was no doubt caused by the imperfectly developed ciliary processes, as well as by the normal choroidal tensor over (both of) which the dark uveal stratum passed. The range of the accommodation was almost 14" or, after 2° prism had been made use of, Snellen's No. I. could be perfectly well distinguished at 4" to 12":

$$\frac{1}{4} - \frac{1}{6} = \frac{1}{12}.$$

During the accommodation for near objects, the black lenticular margin was observed to grow broader; when the eye gazed at distant objects, it became narrower; thus proving that it moved from and advanced towards its *point d'appui*. This latter circumstance also confirms the fact of an increase and diminution in the diameter of the lens.

I observed this phenomenon to an even more decided degree upon dropping into her eyes a solution of atropia, and on introducing the calabar bean (gelatin-capsules or laminæ). After introducing two of these latter, a pretty severe pain set in and continued for over an hour. Even after the lapse of two hours the pain returned, accompanied by a copious discharge of tears, whenever the accommodative power was brought into requisition.

The functum proximum was, proximately, determined to be 4", whilst after a two-grain solution of atropia had been instilled, the near point was found to be 14".

This observation is confirmed by Otto Becker, who found that in albinotic eyes, the iris being transparent, the space between the ciliary processes and the edge of the lens becomes increased and diminished during the different conditions of the accommodative process, as well as after the introduction of calabar bean or atropia.

Our case is another proof, therefore, of the exclusive activity, i. e., necessity of the ciliary muscle in the process of the accommodation. It also goes to prove that the ciliary ligament, or rather its ciliary plexus, is, like the iris, influenced by mydriatics and myotics.

The movements of the iris during the process of the accommodation are, therefore, exclusively to be looked upon as belonging to the class of "associated" movements, which fact, indeed, has already been shown us by Becker, whose observations went to prove that during the accommodation for near objects, the pupil always contracts a longer or shorter time after the accommodation proper.

ART. III.—*Disease of Bone.* By J. S. DORSEY CULLEN, M.D., Professor of Diseases of Women and Children, Medical College of Virginia, Surgeon to City Hospital, &c., Richmond.

CASE I.—*Constant and Local Pains in the Tibia—Treatment, Trephining—Recovery, immediate and complete.*—A large and apparently healthy man, by vocation a stone-cutter, applied to me for relief from a “wearing,” “gnawing,” and continual pain in the lower part of the tibia, a few inches from the ankle-joint, which, for four or five years, had given him untold agony, and often incapacitated him for attending to his occupation. He thinks he had syphilis two years before the pain in the tibia began, though he does not remember having any other symptoms indicating constitutional infection, except those complained of. The gauntlet of medical advice had been run in every place where his trade called him, and from all he generally received iodide of potassium internally, with blistering and iodine applications to the seat of the disease. The potassa would alleviate for a time the pain, but upon its discontinuance, his sufferings would return. There was tenderness upon pressure over the seat of pain, but there was scarcely any enlargement.

I determined to trephine the bone, believing that if an abscess or sequestrum were not found, relief would result from the simple removal of a piece of the tense and irritated tibia. Markoe and Paget report similar results, and guided by their experience I performed the operation.

The Esmarch bandage was used, and completely exsanguined the periosteum, giving a clear and satisfactory view of the parts. There was nothing like caries, abscess or sequestrum discovered, and the only deviation from the normal condition observed was a softened condition of the bone. The wound was stuffed with carbolized oakum, and the leg kept elevated. *From the moment of the operation the pain ceased, and has not returned up to this present writing (nine months since the operation), though he walks and stands upon the leg ten and twelve hours during the day.*

CASE II.—*Disease of Humerus, with Hypertrophy—Intense Pain, with Swelling and Suppuration, of the Superimposed Muscles—Trephining—Recovery.*

A little negro boy, 14 years of age, of strumous diathesis, was sent me from a neighboring county for treatment, with an enlargement of the shoulder-joint and upper two-thirds of the humerus, attended with considerable pain upon movement of the arm and tenderness upon pressure. The origin of the mischief was a blow or fall some months previous upon the anterior portion of the joint, followed immediately by fever and swelling, and subsequently suppuration. The pus burrowed down the arm in a long sinus, and made its exit midway between the shoulder and elbow-joint. There was constant aching pain through the entire humerus, with loss of appetite, nocturnal sweats and fevers. The bone felt as large as the femur, and when moved or struck gave great pain. There was every reason to believe, in this case, that there was a large sequestrum in the bone, or a diffused abscess, and the operation of trephining was determined upon for the removal of both or either.

The bone was trephined about the centre of the enlargement, but no abscess or sequestrum was discovered. The wound was left open for drainage, and in a short time the boy was going about free from the aching pain and suffering which had so long troubled him. *It is now three years since the operation, and he uses the arm constantly at his work with freedom from pain.*

Clinical Reports.

Cases Showing some of the Advantages of Esmarch's Bandage.

Under the care of HUNTER MCGUIRE, M.D. (Professor of Surgery, Med. Col. of Va.), at the Church Institute, Richmond, Va. Reported by J. D. MONCURE, M.D., Medical Superintendent, &c.

CASE I.—J. G., from Buckingham co., Va., æt. 14 years, admitted as private patient October 2nd, 1874.

Two years ago noticed a small hard tumor growing from the left femur, just above and on the inner side of the knee-joint. When first observed, the tumor was very hard, painless, evidently growing from the bone, and about the size of a partridge egg. Since then it has been steadily increasing, until it is now

larger than a hen's egg, producing pain in some positions of the limb, and other troublesome symptoms on account of its size.

Dr McGuire stated that he had consented to remove the tumor, because it was growing rapidly, and the pressure produced by it was painful and inconvenient. The operation would not be free, however, from some danger, owing to the close proximity of the knee-joint; but by using Esmarch's bandage and making the operation a bloodless one, he thought the dissection could be safely made without injury to the knee. Billroth relates a case, very similar to this, of epiphyseal exostosis, which he was induced to remove, in which the patient perished from septicæmia. He says the investigations of Rindfleisch show that the mucous bursæ connected with the exostosis, are "always abnormal elongations of the pockets of the synovial membrane."

Esmarch's bandage having been applied and chloroform administered, Dr. McGuire made an incision down to the tumor, which was found to be a spongy pedunculated exostosis covered with fine cartilage. By means of a small chisel and gouge, the tumor was completely removed from the femur. The operation was absolutely bloodless, and the dissection was made with great care and deliberation. Very slight oozing of blood followed the removal of the elastic strap. Lint was lightly placed in the wound, water dressing applied, and the boy placed in bed, with his limb extended and at complete rest.

On the 12th October, ten days after the operation, the boy was well enough to be sent home.

At this time, December 20th, he is perfectly well and going about.

CASE II.—Harry Johns, Fluvanna county, Va., was admitted into the Church Institute October 3rd. About two years ago, he received a blow upon the right tibia, from the effects of which he has never recovered. Never has had syphilis; has in all respects been a perfectly healthy man until he received the blow referred to. Since that time he has been having attacks of violent pain in the shin-bone. The attacks have gradually become more and more frequent, until of late the pain is constant and almost unendurable. The only exercise he is able to take is on crutches—even this aggravates the pain, and he is generally in

bed. He is able to sleep only under the influence of opium. Upon examining the leg, slight pitting œdema was found over the middle of the tibia, but the bone was not enlarged apparently, and, except the œdema, there was no difference in the appearance of his right and left leg. Just over the middle of the tibia firm pressure produced pain. The patient had taken, before coming to the Institute, mercury and large doses of iodide of potassium, and not without benefit.

October 6th.—Dr. McGuire brought the patient before the class of the Medical College of Virginia, and said he suspected the man had an abscess of the tibia. The history of the case; the increase of heat, the œdema, and the localized pain, all pointed to this.

Esmarch's bandage was applied (chloroform having been given), and the anterior surface of the tibia exposed by incision for about two inches. A trephine was then carried through the compact structure of the bone into the cancellated portion. When the piece of bone embraced in the crown of the trephine was removed, the abscess was exposed to view. Not a drop of blood escaped to interfere with the view of the abscess. The cavity contained about two drachms of pus, and was perfectly smooth and even. Some lint was lightly laid in the wound and patient placed in bed. For the first time for many months he slept that night profoundly for hours without the aid of opium or other anodyne. The wound filled up from the bottom with healthy granulations, and the man was well enough to leave the Institute on the 20th of October.

Dr. McGuire stated to the class that he had selected the place where the œdema was most marked, and the pain on pressure the greatest, to apply the trephine. If he had failed to find the matter the first time, he would have applied the trephine again, or enlarged the bottom of the opening first made, with a chisel. Sometimes a very small collection of matter in a bone gives rise to severe suffering. The pus might not be recognized when the quantity was small, if it was mixed with blood, which escapes so freely from the inflamed cancellated structure during this operation when the bloodless apparatus is not used.

CASE III.—Robert O., sailor, æt. about 35 years, was shot in 1864 with a Minnie ball through the right tibia. The wound

remained open for four years, discharging pus and occasionally some pieces of bone. At the end of four years the wound closed, and remained so until 1871, when, after several weeks of violent pain, it again opened, and has been running ever since. The tibia is enlarged, and about two inches below the knee has an opening in it, which leads down into the medullary cavity. A probe inserted into this opening reveals the presence of a piece of loose dead bone in the cavity.

November 29th.—Chloroform was given and the bandage applied. Dr. McGuire made an incision exposing about two inches of the anterior surface of the tibia. By means of the trephine and small chisel, the cavity containing the dead bone was laid bare, and the bone removed with the forceps. The cavity containing the necrosed bone was perfectly smooth and velvety to the touch.

December 18th.—The cavity is filling up with granulations, and the patient is now able to go about the room on crutches.

Two Cases Illustrating the Effect of Belladonna in Opium-Poisoning. JOHN HERBERT CLAIBORNE, A.M., M.D., Petersburg, Va.

CASE CC.—R. T., infant, aged 6 months, *September 14, 1874, 12 o'clock M.* Nearly two hours ago this child got by mistake, the mother supposing she was administering syrup of ipecac, *half teaspoonful of laudanum.* Within five minutes she was made aware of what she had done, and an emetic of ipecacuanha was at once given. Some ineffective vomiting occurred, but according to those present in the room—very intelligent persons—nothing was rejected having the smell or appearance of laudanum. The child, a healthy little girl, not previously sick except with slight cold, for which the mother was giving syrup of ipecac—as she thought—was pallid, cool, and, though capable of being aroused and made to cry by the rude and constant efforts necessary to be made, and which had been constantly made since it got the dose to keep it awake, could not be left a moment without falling into the most profound sleep.

The pupils of the eyes were contracted to the merest speck in the cornea.

Prognosis very bad. Having a vial of tincture of belladonna in my pocket, I found no difficulty in getting the baby to swallow half teaspoonful at once, and remained for half an hour by it, encouraging its friends in their efforts to keep it awake. At the expiration of that time, the patient not being much improved, I repeated the dose; and being called off, left directions for them to pursue the treatment until I returned, even to the repetition of the belladonna in the same dose every thirty minutes. Having been detained longer than I anticipated, I did not see my little patient again in more than two hours. It had gotten I suppose nearly two drachms of the tincture of belladonna; had vomited freely and was wide awake. The pupils were now so enlarged that but little of the cornea was left visible around the rim, and the person of the child was covered with an efflorescence, as if a first-class case of scarlet fever was budding out. With the exception of some nausea and gagging, however, it seemed pretty well, and in a few days recovered its health without further treatment.

CASE CI.—II. T., brother of the above, got at the same time and by similar mistake a *dessertspoonful* of *laudanum*. He also had taken an emetic, and had vomited freely, and had drunk a cup of intensely strong coffee. He of course was *sleepy*, and his pupils were very much contracted, but not manifesting any of the alarming symptoms which the baby exhibited; he had been turned over to some boys from the ages of eight to twelve years, with instructions *not to let him go to sleep*. They had him out in the yard, and were putting him through a course which evidently implied that they understood their orders and meant to obey. I thought it advisable, however, from the contraction of his pupils, to give him a half teaspoonful dose of the belladonna, and he required no further treatment. It was not followed in his case by the efflorescence, but the pupils responded in a short time to its influence.

These were the largest doses of laudanum or any form of opium ever taken by children of that age, so far as I know, without fatal effects. The boy was saved probably by the prompt emesis and by the untiring efforts of his little friends to

keep him awake; but the little girl owes her life, I suspect, to the counteracting effect of the belladonna. The doses in which I administered it were heroic, but the danger was extreme, and there was no time to parley. The terrible anguish of the mother during those few, fearful hours of uncertainty whether she had sent her two children at once into the grave may be more easily imagined than told.

The whole affair teaches the propriety of the adoption by druggists generally of the plan proposed by the Pharmaceutical Association, of dispensing laudanum, and all medicines equally dangerous, in vials roughened on one surface, so that the attention would be excited simply by handling the medicine.

Two Cases Illustrating the Effects of Belladonna in Opium-Poisoning. THOS. J. RIDDELL, M.D., Richmond, Va.

CASE I.—I was summoned to see Mrs. V., September, 1871, who had taken *two ounces of laudanum*, two hours previous to my visit, the greater portion of which had been absorbed. The usual remedies were resorted to as speedily as possible, but proved ineffectual. She was completely narcotized. Pupils firmly contracted.

Although the case appeared hopeless, yet with the concurrence of a medical friend, we deemed it advisable to try sulphate of atropia hypodermically— $\frac{1}{80}$ th grain in each arm. In less than thirty minutes after its use, the pupils were well dilated, though no other visible effect was produced; light now exerted no influence in contracting the pupils—they remained dilated. And though the patient did not recover, the promptness of the action of the atropia in dilating the pupils in the prostrated or completely narcotized condition of this patient seems worthy of mention.

CASE II.—Was called to Mrs. W., December, 1872, who had taken *several grains of morphine* an hour or two before I was called in; found her in a comatose condition, with all the symptoms of opium-poisoning well marked.

I gave twenty drops of the tincture of belladonna in a mu-

cilaginous mixture every 20 or 30 minutes until its effects on the system were produced, which was accomplished after the administration of some four or five doses; no other medicine was given internally, though other means were resorted to—such as cold to the head, walking her about, &c. She entirely recovered, and was up the next day.

I am aware that the tincture and extract of belladonna have been used for several years in poisoning by laudanum with success, and that the sulphate of morphia has been administered to counteract the alarming symptoms of atropia poisoning. This being true, that opium and belladonna act on the nervous system antagonistically, the natural inference is, that the active principle of belladonna might be prescribed with equal propriety by the profession whenever the poisonous principle of opium has become absorbed; though it must be admitted that after the nervous system has become completely prostrated and narcotized (as in case No. I.) from the effects of opium poisoning, it is impracticable to find any remedy that would restore the system to its original status.

Correspondence.

Is Drinking Water an Etiological Factor in Malarial Fevers?

Mr. Editor,—I am constrained again to trespass upon the space of your invaluable journal. In my short article in the November number of the *Monthly* upon this subject, I gave my own opinion, supported by a number of, to say the least, very respectable authorities in its favor. My own opinion was formed from personal observation of the improved healthfulness of a number of farms in the vicinity of Norfolk, resulting from the substitution of drinking water from good cisterns, for that usually obtained from the springs and shallow wells. Not only was it noticed that adynamic fevers and disorders of the digestive organs greatly diminished, and in some instances entirely disappeared, but with them malarial fevers also, especially where great care was exercised in the exclusive use of cistern water.

It is true that an occasional mild attack would sometimes oc-

cur. Had there been a complete and entire exemption, the inference would have been reasonable, not only that the malarial poison was very feeble in atmospheric suspension, but that the ingestion of the impure surface water was perhaps, especially in the severer cases, the *indispensable factor*! All that the article in question contended for, was that drinking water was sometimes, perhaps often, the *vehicle of the introduction* of malaria, whatever it is or wherever produced, into the system. I incline to the belief that whether inhaled or introduced by water, it oftener reaches the circulation through the alimentary canal than through the lungs. When inhaled, it probably passes into the pharynx from the nares and mouth, and thence into the stomach.

The instance of the *Holland Swamp* farm did not fall under my personal observation, but was reported to me by a friend while engaged in writing the article, and was mentioned accordingly. This instance my friend, Dr. Tebault, takes exception to, in his rejoinder in the last number of the *Monthly*, and it may appear to many that he has completely annihilated the prophylactic qualities, as to malarial fevers, of this, perhaps, the only cistern water in Princess Anne county.

Fearing that my informant was mistaken, I have again investigated the matter, and only a day or two since, I have conversed with the very respectable and intelligent gentleman himself, who occupied the place at the time referred to. This gentleman *reassures* me by the following explicit statement: The place contained five hundred acres, more or less, and had always been noted for its unhealthfulness. Its owner had never resided upon it, but only visited it occasionally to superintend its operations. In 1816, having been detained there, he sickened and died. In the latter part of 1847, my informant leased the place upon the condition of the construction of a cistern (as Dr. Tebault states he had previously advised), the well water being simply detestable. My informant himself furnished the bricks, and they were well laid in cement, but being for the greater part above ground, the cistern was thus liable to be prematurely injured or destroyed. My informant took charge of the place in January, 1848, and it was occupied by his force, numbering from nine to twenty, for the succeeding four years, to January, 1852,

during which time, he positively avers that there *was not a single case* of fever of any kind, or any other illness, with one exception—that of a negro, who was alternately sick and well—(this was probably the case of dysentery which Dr. Tebault attended there in 1849), and who, imagining himself *hurt or tricked*, was not finally restored until administered to by that famous old negro conjuror, Sam Cuffee, formerly well known hereabouts. My informant also states that in 1848 he opened new and reopened old ditches (the soil of the place was saturated and often covered with water), and from the drainagè operations (which I do not in the least undervalue), which frequently increases malarial fevers when first instituted, no bad effect was observable. He moreover stated that latterly the place had gone down, drainage neglected, and that no doubt the cistern had shared the same fate.

From this statement, it appears that my reference to it was not inappropriate. I do not doubt at all, as Dr. Tebault states, that subsequently malarial fevers have reappeared there. The case of congestive fever that the Doctor says terminated fatally upon the place, must have been subsequent to 1852. If this case is to be taken into consideration, it ought to be shown that prior to the attack he drank none other than cistern water. But as to this I am indifferent. I am satisfied that there are facts enough to sustain my position not outweighed by negative evidence; nor should the facts be rejected, though they are not constant.

Perhaps I should notice that Dr. Tebault thinks Dr. Parkes (so freely quoted by myself) “betrays a singular inacquaintance with the cause and pathology of malarial fevers.” Now, the expression he quotes in evidence amounts to very little. Splenetic enlargement is generally regarded as the most characteristic lesion of paludal fevers (though it occurs in others, as in typhoid fever), and where the passage alluded to occurs he (Parkes) only incidentally referred to the spleen in the discussion of a purely etiological question. There was no pretence of entering into the *cause* and *pathological changes* appearing during the course of the fevers. Dr. Parkes’ residence in India, and his presence in the Crimea, where malarial fevers also abound, gave him ample opportunity for their study, and his present eminent

position precludes any suspicion of inacquaintance in the premises.

I did not, in my paper, discuss the question of the origin of malaria itself, nor the factors necessary to its evolution. Dr. Tebault, for whom I entertain the highest regard, exhausted the subject in his "*Study of Malaria.*" The only point on which we differ is the capability of *malarial diseases* being induced by the ingestion of water. To my statement, "that families from non-malarial districts recently settling in this vicinity, escaped these diseases by confining themselves to good cistern water, while their less fortunate native neighbors, not thus provided, suffered as formerly," the Doctor replies "that for the last two years very few cases of paludal fever, comparatively speaking, have been treated in this region, and the new-comers have been more exempt than the native population, who are more or less under the influence of malarious cohexia." Now, my observations are far from being confined to the last two years. I have known certainly of four heads of families within a few years, from the North, who have died of congestive fevers, and in these cases the ordinary well or spring waters were alone used. But the Doctor's reply does not comport with the following extract from his "*Study of Malaria,*" to wit: "Malaria may operate, so to speak, in very small doses, though its effects are more sudden and vivid when in concentrated force, *and the more so the purer was the blood antecedently, and the less habituated the system to ready elimination.*"

Now, Dr. Tebault regards the indispensable factor of malarial fevers "as dependent upon a specific element or poison," and is probably inclined to accept the cryptogamic origin, as uniting most elements in its favor. In this he is well supported. If, then, malaria is a specific poison of cryptogamic origin, I know not a reasonable argument against water being a carrier of it under certain conditions. Lionel Beale says "some kinds of living matter may pass long distances through air *or water* without being destroyed. They multiply only when they fall upon a surface where the particular pabulum adapted to their nutrition, and circumstances favorable to their development, are present;" and "lower vegetable organisms may live quiescent in a state of imperfect desiccation for a length of time, growing and

multiplying rapidly as soon as favorable conditions are established." We know that the lower organisms live in the air, but there is very high authority for the statement that they lead a much less active life, and their capacity for increase is much diminished outside of fluids. To detect atmospheric spores, it is necessary to condense its vapor into *water*, or to collect them upon some adhesive fluid, before they can be submitted to the microscopic examination. In fact, we know that water under certain conditions (which may exist naturally) may be a fruitful source of infectious parasites. In every malarial region these conditions are frequently present in and about the springs and wells in use. These springs are often found situated in the deeper depressions of the soil; on the borders of water courses; at the head of some bog, branch or swampy place, where the fresh water "oozes from the more elevated banks;" often in close proximity to saline marshes, and surrounded by mud containing organic detritus, although the soil from which the water flows already contains this in profusion; and often these springs and wells are the common resort of both man and beast, and hence extremely liable to contamination also from their excreta. Why, such water, at a favorable temperature, "may be relatively rich in ammonia, acids, the salts, organic substances, and even the lower organisms," and it would not be far-fetched to compare it, as has been done, to the well known solution of Pasteur, peculiarly fitted to the breeding of microzymes and fungi.

Malaria is said to be heavier than atmospheric air, but it floats for considerable distances without losing its power for evil—or, perhaps it should be said, before undergoing oxidation. Is it necessary that it should only touch water (for water undoubtedly absorbs it) to be instantly destroyed? May it not rather, for which there is excellent authority, remain active for a time, however short?

Water may be at times free from the germs of malaria, as is the air. At other times it may contain them in profusion, and when this is the case, their ingestion may cause severer symptoms than when inhaled with the air.

"Balestra found the stagnant waters of the Pontine marshes filled with organisms of various species, and one in particular—a small alga—floated upon the surface of the water, presenting

the appearance of minute drops of oil, and which, during warm weather, reproduce rapidly, and their spores were disseminated through the atmosphere. Finding that arsenious acid, sulphate of soda, and quinine destroyed the vitality of the plant, he inferred that the miasm of these marshes were due to its existence and propagation." But whether the malaria be due to the algæ of Balestra, the palmellæ of Salisbury, the oscillarinae of others, or, indeed, to any particular minute organism, I can see no valid reason why it should not enter the human organism by *water* as well as air, or even, as has been maintained, through the skin.

As to the Norfolk water-works, which, Dr. Tebault thinks, a Board of Health holding such opinions as to surface water of malarial regions ought to condemn, there are very excellent reasons of a chemical nature, if I may so speak, which restrain them from so doing.

They might possibly have their doubts of its wholesomeness at certain seasons, if this water underwent no change, or was not subject to a purifying process. Coles' Pond, or Lake Lawson, as it is now called, eighty-five acres in extent and averaging nine feet in depth, is the source, at present, of the city supply. Here the water is collected, and the extensive area of the Pond affords ample opportunity for its oxidation or aeration. It is thence conducted two miles through a wooden conduit to Moore's Bridge, to the settling reservoir. This is between four and five miles from the city. It is now forced, by means of the Holly pumping machinery, through an iron main to the city limits, and is distributed through about twenty miles of iron pipes of dimensions from twelve inches to one inch, so that hardly a particle of this water escapes contact with the iron. Now, years since it was established by a distinguished chemist in Holland that iron is an effectual means for the *separation of organic matter from water*. The experiments proved that the organic matter in the water was either decomposed or thrown down (rendered insoluble by contact with iron). It was proved by a series of analyses that iron produces nitrous acid by its action on the nitrogenous (ammoniacal) organic matter. Muspratt calls nitrous acid Nature's scavenger. This chemist found, as a general result, that by allowing water to be in contact with a considerable surface of iron, in forty-eight hours every trace of

organic matter was either destroyed or rendered insoluble, in which state it could be purified effectually by filtration. Now, with the use of charcoal filters, which are now gotten up in the handsomest manner, so that they can be attached to every hydrant, the Norfolk Board of Health can afford to be easy on the Norfolk water-works, and may be even induced to drink their water themselves.

Yours truly,

HERBERT M. NASH.

Norfolk, December 27, 1874.

[We take the liberty of making the following extract from a personal letter from Dr. Thomas J. Dunott (Harrisburg, Pa.), in reference to the case of *Removal of Scirrhus of the Breast by Galvano-Cautery*, reported by him in our December (1874) number, page 550, *et seq.*]

"Its fatal termination will, however, prevent us from indulgence in much glory. Until the tenth day following the operation, the progress of the case was perfectly satisfactory, both as to the general condition of the patient and the appearance of the wound. But on the morning of the eleventh day the granulations were dry and pale; and during the evening a thin, serous ichor took the place of healthy pus; and the lady complained of oppression and pain in the chest. The pulse was likewise rapid, and at times irregular during the night. On the morning of the twelfth day, there were undoubted signs of pericarditis and pleuritis with effusion. Death occurred on the fourteenth day after operation. No autopsy.

My experience with this case would not lead me to abandon the method [galvano-cautery] in mammary scirrhus. The patient, though robust looking, was almost too old for repair of so extensive a wound to take place within a short time. Of course the sloughing brought putrid detritus in contact with the proliferating granulations; but these granulations were not produced with sufficient rapidity to offer any obstacle to infection. The patient, in my judgment, sank under the shock of septicæmic poisoning.

With a more suitable case, I think success would occur as often as with any other plan; but the immunity from recurrence

of the scirrhus is the question to be settled. Except something be gained in this direction, the galvano-caustic battery has no advantage over the knife. The history of *Uterine Surgery*, by Byrne, leads me to hope that in external malignant developments, we may be equally fortunate. Our patient was determined to have the operation performed, and having been refused operation by several surgeons, she sought advice everywhere, and coolly informed us that if we did not remove her cancer, she would go to a 'cancer-doctor' in Mt. Holly, who pulls them out by the roots. This determination on her part overcame our reluctance, and the operation was done."

Analyses, Selections, &c.

Delivery through the Rectum in a Case of Occlusion of the Os Uteri.—Dr. Goronwy Owen, of Mobile, in the *Transactions of the Medical Association of Alabama*, 1874, reports the case of a mulatto woman, aged 34, delicate in appearance, though she claims always to have been healthy; married 1863; had one child, which died soon after birth, since which time the mother has lost flesh, and has had slight pain at each menstrual period. In October, 1869, she accompanied a lady as nurse to Washington, but returned to her husband October, 1870, much improved in flesh and appearance. The menstrual function was normal in October and November.

December 25th, 1870.—Seized with intense uterine pain at the menstrual period. Dr. O. found her in great agony, without fever or inflammatory symptom. Opiates were freely prescribed; and after three or four days, the pain subsided without the establishment of the menstrual flow. Thinking that the pains were due to threatened abortion which the opiates had relieved, no vaginal examination was made.

From this time onward, the usual signs of pregnancy presented. She was not sick, but gradually emaciated until August 20th, 1871, when labor set in. A colored midwife remained with her two days, when Dr. O. was called in. On entering the room, the Doctor thought from the character of the pains that labor had advanced to the second stage. Digital examination showed the head to be upon the perineum, and it was thought that delivery was prevented only by a tough bag of waters. A

further examination, however, showed that this supposed bag of waters was the attenuated wall of the vaginal portion of the uterus, upon which no os was found. Drs. Gaines and Webb, after examination, fully concurred.

Dr. Gilmore, with the aid of a Sims' speculum, exposed the vaginal portion of the uterus, and upon the anterior part a dimple was found, with œdematous edges or lips. This was inferred to be the original location of the os, and here we decided to make an opening, which was easily done. No hemorrhage followed, but immediately dilatation resulted to the extent of one and a half inches, through which was felt the child's head, covered with the amnion. But no progress being made for some time in the labor, ergot was given, but without avail, as the patient went to sleep and slept gently until the next morning, when all uterine action had ceased. And to the great surprise of the physicians in attendance, pain did not recur for 28 days—at the period, perhaps, of the regular menstrual discharge.

At this time pains set in as in natural labor, though not so strong as before, nor did they make any perceptible impression on the os. The patient and her friends positively opposed any kind of instrumental operative assistance. The contractions again diminished in strength, and finally ceased altogether as before.

The patient passed another month of comparative comfort, though feeling the motions of the fœtus all the while; but finally she began to suffer pain as before, which, however, passed off after two or three days.

After the third month, the patient did not feel the fœtus move, nor could the sounds of the fœtal heart be detected; and it soon became evident that the uterus was getting smaller, the patient was able to attend to her daily duties, and thought that her doctors had made a great mistake. Yet upon vaginal examination, the presentation and position could still be easily made out, and the patient was informed as to the danger of delay of the operation, but she would not submit, as she thought her general health was daily improving.

As time passed, she became able to walk about the city without inconvenience, and her size diminished—from absorption of liquor amnii and shriveling of the fœtus—so much as not to attract attention; but the outline of the child's body could still be made out through the mother's abdomen, and the head could be felt as distinctly as at any previous examination through the vagina.

This condition continued until July, 1873, when, after a walk of seven miles, she had a chill, followed by fever, which lasted

nine days; and though very sick, she did not complain of uterine uneasiness, nor did pressure upon the abdomen or through the vagina cause any pain. In a week from the cessation of fever, she had another chill, followed by fever, which recurred at irregular intervals, attended with a sense of heat in the pelvis and rectal trouble. On examination, the cranial bones were found separated, and the incision made by Dr. Gilmore was so nearly closed that Emmet's uterine probe could not be passed more than half an inch into the cervix, which was much thickened by the results of inflammation.

Her agony was now beyond description. Drs. Fournier and Moses were called in consultation, who, after careful examination, agreed with Dr. Owen as to the propriety of an operation; but she said she would die rather than submit. She had emaciated rapidly, and had an offensive muco-purulent rectal discharge, attended with constant bearing down effort. A rectal examination proved that an angle of one of the cranial bones had perforated the uterine and rectal walls; for the relief of pain, as the patient still stubbornly refused operation, opium was prescribed and the case abandoned, in the expectation that she would soon die.

After three weeks, however, she sent for Dr. O. again, stating that her sufferings were intolerable, and that the Doctor might do what he pleased. On examination, one of the cranial bones was found in the rectum, immediately over the anus, acting as a valve, effectually preventing defecation.

October 29th, 1873.—Dr. Gilmore called in consultation. Patient was now literally skin and bones, with hardly a pulse at the wrist. Prognosis very unfavorable; still, operation was her only chance. Brandy was given liberally, and chloroform administered, with the effect of improving the pulse. There was great relaxation of the parts from long and extreme emaciation, and from the chloroform, allowing dilatation of the anus to almost any extent—sufficient at least to extract the foetal mass without difficulty, though the child's pelvis with the viscera (which was a putrefying mass) and the bones of the lower extremities, were still in the uterus. The uterus contracted firmly upon the hand during the process of extraction, and of course no hemorrhage followed.

After the operation, the patient did not seem any weaker than before it was undertaken, though her feet and hands were cold and clammy. Every effort to bring about reaction, by external heat and stimulants, was resorted to; and after a period of a week, the patient began to convalesce slowly, and to relish food; and notwithstanding she had a purulent discharge from the

rectum for some time afterward, her improvement was steady, and in a month she was able to walk about her room. By February 17th, 1874, she had regained her flesh, and was in every respect well; indeed she menstruated freely without the least pain. In March, she menstruated again without pain.

Dr. Owen prevailed upon the patient to allow an examination with the view of ascertaining the condition of the parts after recovery, which was, in every sense of the word, complete. On rectal examination, the fistulous opening into the rectum had healed without any stricture or contraction. On vaginal examination, the cervix uteri was of normal length, perfectly movable, and of a healthy pink color; and the os, which before the extraction, from inflammatory enlargements and induration, would not admit a probe, now readily admitted the passage of Simpson's uterine sound.

The fetal specimen is preserved in the museum of the Alabama Medical College.

Local Use of Vinegar in Prurigo and Pruritis.—Dr. W. A. Hardaway, St. Louis, states in the *Missouri Clinical Record* (December, 1874), that Dr. Bowling, of Tennessee, declares that (Watson's *Practice of Physic*, last edition, foot note) the plan of sponging the parts affected by prurigo, night and morning, with the best cider vinegar, and, after the vinegar has dried, smearing the surface with citrine ointment, generally produces a cure within a week. Dr. Hardaway confirms this statement, and remarks that he has found vinegar of special benefit also in pruritus dependent upon general causes, though he does not affirm that it is indicated in the itching of eczema and diseases of that class. These remarks are followed by reports of three cases:—one of *prurigo senilis* of long standing, relieved entirely of itching within a few days by the use of vinegar and citrine ointment; one of *pruritus of the scrotum* of several months' duration, entirely relieved within five days by the use of vinegar alone; and one of *pruritis hiemalis*, of Duhring, treated by vinegar—discharged well within a week.

According to Dr. Duhring, *pruritis hiemalis* occurs during autumn or early winter, when it disappears to recur the following season. It is characterized by the sudden supervention of itching, usually of the lower extremities, coming on at night, and sometimes so severe as to prevent sleep; but as a rule it does not return until the next night. It has no primary eruption; but secondary lesions are well marked if the trouble is long-continued or severe. It attacks both sexes and all ages.

Ligature versus the Knife.—Allingham, in the *Press and Circular*, Dec. 2, 1874, says that he is thoroughly convinced of the decided advantages of india rubber ligatures over the knife in many surgical operations. He has used the ligature in 60 operations—40 times for fistulæ in ano, 5 for hemorrhoids, 2 sinuses in the groin, 1 sinus in the neck, 2 removals of scirrhus breasts, 2 removals of pedunculated tumors, 2 for varicocele, 2 for varicose veins, 1 division of the sphincter ani, 2 for linear rectotomy, 1 nævus. The resulting wounds have been uniformly remarkably healthy. Many of the cases at St. Marks' were treated when the hospital was not in good hygienic condition, but all the ligature wounds were generally much healthier than the knife wounds in patients in adjoining beds—although precisely the same after-treatment had been adopted in each, viz., the application of carbolized oil. He did unfavorable as well as favorable cases with the ligature—3 of 28 hospital patients being decidedly phthisical; and when occasion presented, he chose two cases as much alike as possible—the result of the experiment was uniformly in favor of the ligature.

In 19 ligature cases of fistula, the average time in the hospital was $20\frac{1}{4}$ days; while in 19 selected incision cases the average time was 34 days.

Broadly one may state these probable advantages of the ligature over the knife in dealing with ordinary sinuses:

1. The operation is commonly painless, and the subsequent suffering, if any, is usually very slight.

2. It is bloodless.

3. Greater rapidity of cure.

4. The patient may go out—driving or walking in moderation.

5. Peculiar applicability to delicate patients, and those who have a phthisical tendency.

6. Usually no anæsthetic is required.

7. There is a minimum amount of suppuration.

8. The ligature is often a very advantageous supplement to the knife.

The pain inflicted is no greater than that caused by the passage of a probe through a sinus. A slight amount of pain may result in rendering an incomplete fistula complete. Patients do not flinch or complain of tightening the ligature.

Of course much walking about or hard work is not advocated; in fact, the patient who can spare the time or whose case is severe should take all the rest and quiet he can. But observation of a fair number of cases proves that absolute rest in bed or confinement to the house is by no means a necessity.

When fistulous sinuses run very far up the bowel, and when the parts are very vascular and indurated, the bloodlessness of

the operation by the ligature is an advantage not to be lightly valued. With the elastic ligature, the writer has laid open the rectum for six inches upwards in a case of stricture and ulceration without the loss of a teaspoonful of blood, where, from the induration and vascularity of the parts, profuse bleeding would have inevitably followed the knife. Again, in the hemorrhagic tendency, this method is highly useful.—*The Clinic*, December 26, 1874.

Tarlatan as a Bandage and Dressing for Wounds.—Prof. A. B. Cook, M. D., of Louisville, Ky., in speaking of the value of this material (*Amer. Med. Weekly*, Dec. 26, 1874) in the treatment of wounds, claims as advantages, that it is “cheap, light, transparent, cool and comfortable; it is so open in texture that it secures the daily inspection of the wound or diseased structure without the necessity of removing the dressing or disturbing the patient—two things so much dreaded by the sick. It does not interfere in the least with the local application of poultices, water or medicated lotions; it gives free exit to pus and other exudates; sinuses and abscesses can be injected by passing the nozzle of a syringe through the meshes; the wounds or diseased parts can always be cleansed, and, if necessary, deodorized by passing a moist sponge lightly over the bandage. The bandages must be cut of the required length with scissors.”

Treatment of Pertussis by Inhalation.—Dr. J. Winthrop Spooner, in the *Boston Med. and Surg. Jour.*, Nov. 5th, 1874, details the results of his experience in eleven cases of whooping cough, treated by the plan recommended by Dr. John J. Caldwell, of Baltimore, in the number of that journal for April 20th, 1871, viz :

R. Fl. ext. belladonnæ.....℥v to x.
 Potas. bromid.....℥j
 Ammon. bromid.....℥ij
 Aquæ.....℥ij

M. S.—Inhale one tablespoonful in an ordinary steam atomizer.

Dr. Spooner is in the habit of using a tablespoonful of this mixture, and filling up the glass of the atomizer with water. When the disease is at all severe, he uses the atomizer twice daily until the urgency of the symptoms is relieved, and then continues it once daily until the cough has entirely disappeared. In some cases, he has somewhat varied the proportion of the ingredients, but has made no essential departure from the formula given. The effect of the method shows itself immediately, and besides the prompt relief of the distressing symptoms, the pe-

riod of the disease itself is much lessened in the majority of cases.

In only one of the eleven cases was any other treatment than that by inhalation used; and the apparent failure in this case seems to be due to the difficulty in administering the remedy thoroughly on account of the age of the child—only two years old.

Nitrite of Amyl and Belladonna in Dysmenorrhœa.—Dr. Mary Putnam Jacobi at the meeting of the *N. Y. Med. Jour. and Library Association*, Nov. 27th, 1874, read a paper on this subject, detailing three cases of severe spasmodic dysmenorrhœa to illustrate the method of operation of these remedies.

The argument in support of this treatment was founded upon data furnished by the second case, viz: (1) vomiting, pallor of skin, cold hands and feet; (2) extraordinary peristaltic action of the intestines; and (3) spasmodic pain in the uterus. All of these point to one element, that of spasmodic contraction of blood-vessels.

The so-called sympathy between the uterus and the stomach, and between the stomach and brain, were fully considered in their dependence and interdependence with reference to the symptom, *vomiting*. Reasoning from the experiments of Schiff and others, it was believed that the vomiting of pregnancy, of sea-sickness, and of many cases analogous in character, was due to anæmia of the brain, producing spasmodic contraction of blood vessels at its base. It was also argued that anæmia of the intestines produces increased peristalsis, due to spasmodic contraction of blood-vessels.

The conditions in which a hollow muscular organ can contract in the state of vacuity are: After direct irritation (1) of its nerves; (2) of its muscular fibre; and (3) after changes in its circulation.

Six experiments upon rabbits were detailed. The abdomen was opened, the intestines drawn out and carefully protected in a bag of oil silk immersed in a vessel of warm water; the uterus and abdominal aorta exposed. The aorta was ligated; several peristaltic waves ran down the rectum, but never in a contrary direction. Contraction of the uterus occurred, and was distinctly visible at the middle third of the organ. Upon removing the ligature, the contractions ceased.

The conclusion drawn from the experiments was that tonic uterine contractions may be excited by occlusion of the aorta, and that such contractions continue from one to four minutes after compression has been removed. Clonic contractions also

occurred, after the type of contractions of masses of smooth muscular fibre.

The bearing of these experiments upon the treatment of spasmodic dysmenorrhœa, is that the pain is dependent upon tonic and clonic contractions of the uterus. These in turn are due to changes in the circulation of the uterine walls. If the change of the blood-vessels passes to an irritation, spasmodic contraction must take place, and uterine contractions will be determined by local anæmia.

Spasmodic contraction of blood-vessels resulting from irritation of vaso-motor nerves is the cause of the pain of spasmodic dysmenorrhœa. It is upon these considerations that the remedies suggested are used.

The *secondary* effect of belladonna is dilatation of the blood-vessels. It is to be administered, therefore, for several days previous to the occurrence of menstruation, so as to obtain its *secondary* effects.

Nitrite of amyl is used to relax blood-vessels, in accordance with its admitted physiological action; and therefore it is administered (by inhalation, two or three drops *pro re nata*) when pain comes on. In one case, a single drop of amyl was all that was required.

This method of treatment is, of course, more especially adapted to cases of spasmodic dysmenorrhœa; but it has been found both in the experience of the author of the paper and in that of others, that great relief may be afforded, even in those cases in which the dysmenorrhœa depended upon displacements, constriction of the cervix, etc.

Dr. Sell remarked that he had been in the habit of administering amyl (one drop doses with 3j peppermint water, repeated every half hour) by the mouth, and had obtained just as good results as when the remedy had been inhaled. However, he had used the nitrite of amyl in only one case of dysmenorrhœa, and in that case the pain was completely relieved.—*Med. Record*, January 2, 1875.

Treatment of Cancer by Marsden's Arsenical Paste.—Dr. Daniel Lewis, of New York, contributes to the *American Practitioner*, (Dec., 1874) the results of ten unpublished cases of cancer treated by Marsden's arsenical paste, viz :

R. Arsenious acid..... 3ij.
Mucilage of gum acacia..... 3j.

Mix into a paste too thick to run.

Of three cases treated by Dr. Crandall, Andover, N. Y., one patient, male, aged 69, "lived two years without recurrence [of the epithelioma of two years' standing below the left ear], when

he died of some cardiac affection;" the second patient, aged 50, epithelioma on right cheek, still remains well after five years; and the third, male, aged 62, medullary cancer of the vertex, continues well after two years.

Dr. L. then reports seven cases treated in the same way by himself, with uniformly satisfactory results; and two cases by Prof. Fordyce Barker, one without recurrence after four years, and the other with recurrence after one year, when the knife was used, but with what result, is not known.

Hot Water Injections in Uterine Diseases.—Dr. Thos. Addis Emmet, in a most valuable article contributed to the *New York Medical Journal*, July, 1874, says the *prolonged* use of hot water vaginal injections is followed by tonic contraction of the arterioles, thus bringing about an approach to healthy action—the *immediate* effect of heat being dilatation, the *secondary* contraction.

He recommends, as the best method of obtaining the contractile effect, that the woman be placed on her back, with the hips elevated by a properly shaped bed pan under her, and that a gallon or more of water at 98°F. or higher temperature be slowly injected into the vagina with a Davidson's syringe. The mucous membrane becomes blanched, and the size of the canal is diminished, just as if a strong astringent had been applied. With the hips elevated, the vagina will retain a large quantity of the water, which also, by its weight, distends every portion of the canal, so that it will come in contact with the entire mucous membrane, under which the capillaries lie.

The vessels of the cervix and body of the uterus pass along the sulcus on each side of the vagina, and their branches encircle the canal in a most complex network. The vessels of the fundus, through the veins of which the blood passes by the liver back into the general circulation, anastomose with those below. Thus the whole pelvic circulation may be influenced, directly or indirectly, through the vagina. We can so diminish the supply of blood as not only to check congestion, but we can literally starve out an inflammation.

He stated that, from his own observation, several injections a day at 100° to 106°F. will avert an attack of cellulitis, if early used and persevered in, with the aid of rest and anodynes. These injections also exercise a most beneficial effect upon the reflex system, by allaying local irritation. He knows no better means for removing the nervousness and sleeplessness of hysterical women than prolonged hot water injections. To receive permanent benefit from their use, they must be continued once a

day, preferably at bedtime, until the patient's health is restored. He thinks the patient cannot administer them properly herself—no arrangement can take the place of an intelligent nurse. As the patient improves in health, the quantity of water can be diminished, and the temperature lowered, until the injections are discontinued from daily use; but for some time they should be employed for a few days after each menstrual period.

Suppression of Urine.—The following cases (*Trans. Maine Med. Assn.*, 1874) are of special interest in connection with the most interesting report by Dr. A. W. Fontaine, in the October number (1874) of the *Monthly*:

Dr. P. C. Wiley, of Bethel, reported a case of entire suppression of urine for 37 days, with recovery.

Dr. B. F. Buxton, of Warren, verbally reported the following case: A woman 30 years of age, very fat, and subject to a mild form of eclampsia of an epileptiform character. When seen she had violent pain, which she said was nearly as severe as labor. She had passed no urine for 24 hours. He introduced a catheter, but found no urine in the bladder. He gave her diaphoretics and opiates. He saw her the next day, and still she had passed no urine. This condition continued for $10\frac{1}{2}$ days, during which there was no urinous smell about her; her bowels were constipated, and the skin was flushed. On the ninth day, Dr. Estabrook saw her with him, and they both expected a fatal result. At the end of $10\frac{1}{2}$ days, she passed a large quantity of urine from the bladder, which seemed normal in quality. From that time she made a good convalescence. During all this time there was no symptom of blood poisoning, and no vicarious action of any other organs.

Dr. A. S. Thayer, of Portland, reported the following case: A child had scarlatina, which ran its usual course for three weeks, when there was suppression of urine. She passed about one drachm the following night. There was considerable anasarca; she was nervous and sleepless, and the stomach was irritable, but there were no convulsions. At the end of exactly one week, she passed about an ounce of urine, and from that time made a good convalescence.

Dr. G. F. French, of Portland, reported a case of a girl 18 or 19 years of age, very hysterical, in which there was complete suppression for seven or eight days, and then but a small amount was passed. This was repeated at three different times at varying intervals. She also abstained from food for three weeks. She is not in good health at present.

Peritonitis, with Purulent Effusion—Tapping—Recovery.—A. J. Fuller, M.D., of Bath, reports the following case (*Trans. Maine Med. Assn.*, 1874.):

May 13th, 1872. Mrs. S., aged 28 years, previously healthy, was attacked violently the previous night, after walking some distance exposed to cold night air—all the usual symptoms of peritonitis being present, high fever, tenderness and swelling of the abdomen, with constipation. I pursued an active antiphlogistic treatment, combined with alteratives and sedatives.

May 19th.—So far recovered that I discontinued my visits.

May 24th.—I found the abdomen largely distended; no pain or tenderness; feeling quite well. Fluctuation over the whole abdomen, having, as I supposed, all the appearance of serous effusion. The distention had been very rapid, without any constitutional disturbance perceptible to the patient. I employed such remedies as were indicated without the least improvement. The patient was seen by two other medical gentlemen. There was no perceptible change for six weeks; then some slight chills, with prostration, appeared. I felt that further delay in removing whatever might be in the cavity would be detrimental to my patient.

I operated *July 16th*, and, on withdrawing the trocar from the canula, it was followed by a full stream of six quarts of pure pus. I dressed the wound with cotton wadding, secured by adhesive straps. In the following three weeks I drew five quarts more of pus at different times—the original wound never healing until all was removed. This large drain rendered the patient somewhat anæmic, with loss of strength. With tonics and generous diet she soon began to recover, and, so far as the difficulty described was concerned, seemed to fully regain her health.

The interesting point in the case is, that so large a collection of pus should form so suddenly with so little constitutional disturbance. The query is, was the first deposit pure pus, or was it an abnormal secretion degenerating into pus.

Quinine as a Prophylactic of Erysipelas.—Dr. Y. R. Le Monnier, Visiting Surgeon Charity Hospital, New Orleans, in the *N. O. Med. & Surg. Jour.*, November, 1874, considers quinine, until otherwise proved, as a preventative of that erysipelas which so often follows wounds.

“When the disease is epidemic,” says Dr. Gross, “it often shows itself within a very short time after the receipt of an injury, however slight.” In Dr. LeMonnier’s ward, the disease raged for five months, during which time he dared not operate, unless in cases of immediate necessity. Case 3 shows that the

patient was operated upon for fistula of the anus April 19th, and on the morning of 21st he had erysipelas at the seat of injury.

He had to operate on another patient for fistula of the nates on the same day, and there were three cases of the exanthem in adjoining beds. He then prescribed quinine as a prophylactic for the first time (gr. ij every two hours; afterwards three times daily). The patient was in the infected ward for 17 days, his wound progressed satisfactorily, and he was discharged cured without having had erysipelas.

Dr. LeM. continues: "From this day, I gave quinine in two grains doses three times daily to all the patients upon whom I operated, and have not had any new cases among them. Case 7, to whom I did not give it, not thinking it necessary, was taken sick with the disease [erysipelas of the anus] May 1st, 1874," subsequent to manipulations for gradual dilatation of a stricture of the rectum.

Heteroplasty.—M. Anger has made some researches as to transplantation of certain parts of skin borrowed from amputated members, and applied with the view of obtaining cicatrization in other subjects, for which operation the name *heteroplasty* has been proposed.

In all cases the graft was made with tissues that retained the temperature of the body.

Observation showed that the epidermis covering the grafted pieces became, in a few days, less adherent, and seemed about to fall off, which it actually did at the end of five or six days, leaving the piece denuded like the surface of a tegument newly recovered from a blister. The cicatrix, nevertheless, formed very rapidly over the whole surface of the piece and its periphery. He thinks the result warrants the belief that the grafts called epidermic only succeed on condition of a lamella of the dermis remaining united to the epidermis.

There is nothing new in M. Anger's method. Freshly amputated limbs have been used as sources of skin for grafting by English surgeons for the last four years at least.—*London Med. Record*, Dec. 16, 1874.

Transfusion of Blood.—Samuel Willis (*Lancet*, Oct., 1874) states that according to Sismondi, and also Villari's "*Life of Savonarola*," transfusion was performed by a Jew doctor on Pope Innocent VIII. "The experiment was tried three times, and at the cost of the lives of three boys, * * * but without any effect to save that of the Pope," who expired April 25th, 1492.

Proceedings of Societies.

AMERICAN PUBLIC HEALTH ASSOCIATION.

(Continued from page 570.)

THIRD DAY.—How does Syphilis affect Public Health? was the subject of a valuable paper by Dr. F. R. Sturgis, (N. Y.). He divided his subject into three heads.

First—Is syphilis of common occurrence? The statistics examined embraced only cases of syphilis properly so called, and did not include gonorrhœa or “chaneroid.”

In the U. S. Army, the statistics of mean strength from 1840 to 1859 show a percentage of 1.1 cases of syphilis. For five years from 1870 to September, 1874, inclusive, the percentage in the Department of the East was 4.61. The report of the Mercantile Marine for 1872 gives 15.33 per cent. The report of the Mercantile Marine of New York City from January, 1871, to October, 1874, gives the percentage as 16.19. Reports of the British Army for 1869, 1870, and 1871 show the percentage as 7.6 of the entire force. The statistics of the Naval Hospital of Brooklyn for the years 1870 to 1874 show 8.59 per cent. The percentage of syphilis among the poor of New York, as shown by reports of hospitals and dispensaries, is 1.5 per cent. of all cases treated. The defective registration of patients is so prevalent that this figure is probably too low. The English reports of Mr. Wagstaffe show that in London nearly 7 per cent. of all the poor who receive medical relief are affected by syphilis. The figures of M. Lecour show that in Paris the condition of affairs is about the same; and these statistics, as a whole, indefinite and variable as they are, are presented with a view of showing that the disease is probably wide spread.

In regard to the second question, whether syphilis can be regarded as the cause of a large number of deaths, Dr. S. thought it could not. Statistics were collected from the leading London hospitals, from the Charity Hospital, N. Y., and from various other sources, and with a result likely to prove surprising to those who regard acquired syphilis as a fatal disease. At St. Bartholomew's, from 1860 to 1871, inclusive, 1 per cent. of all the syphilitic cases treated died. At St. Thomas's, 1866 to 1871, inclusive, 4 per cent. died. At St. George's, 1866 to 1870, inclusive, 1.5 per cent. terminated fatally. At the London, during three years, a little over 3 per cent. died. At the

Charity Hospital, Blackwell's Island, during four years a little over .3 per cent. died.

These figures comprise only the secondary and tertiary forms; primary and congenital syphilis are not included. The immediate causes of death were ascertained in sixteen of these cases, and it would be difficult to ascribe them all to syphilis, except indirectly. It should be noted that in all the cases of death the end was accelerated, if not caused, by diseases which are in themselves serious, perhaps actually fatal, apart from any consideration of syphilis. Turning to the mortuary record of cities, we find in London in 1871 the percentage of deaths from syphilis to the total number, .8. In New York, for 1871, 1; Philadelphia, 1871, .2. In face of these figures, would it be fair to consider syphilis as a fatal disease? Decidedly not.

As regards congenital syphilis, the case is different. In London (1871), the percentage of deaths under five years to the total deaths from syphilis was over 89; in New York, over 84; in Philadelphia, over 63; truly, a wholesale massacre of the innocents. Large as these figures seem, they are borne out by the statistics of other countries. During recent years, the percentage of mortality from syphilis has apparently increased, probably on account of more accurate registration. The effects of syphilis are serious enough; but Dr. S. most earnestly protested against exaggerating them. The danger to the public health from syphilis lies not so much to those who acquire the disease as to those who inherit it.

As to the third question,—Does syphilis favor the development, or does it fatally influence the course, of other diseases?—Dr. Sturgis brought forward much carefully-prepared statistical matter, as well as details of cases coming under his own observation, to show that, comparatively, acquired syphilis does not, while congenital syphilis does greatly influence the fatality of many other diseases.

In summing up his communication, Dr. Sturgis stated the following conclusions:

1. Syphilis is probably widely spread, possibly increasing in extent. This opinion, from the imperfect means at our disposal, must, for the present at least, remain more or less as conjecture.

2. The question of the fatality, so far as the acquired forms of the disease go, may be answered in the negative; but its excessive mortality in the congenital variety renders it serious and alarming. One cause of consolation remains, however—*i. e.*, that the disease does not probably extend to the third or fourth generation, usually dying out with the second; nor does it

transmit any specially vitiated vitality to the posterity of the original sufferer.

3. In the third proposition the same condition is found, viz., the comparative harmlessness of acquired, and the fatality of congenital syphilis over the course and development of other diseases.

The danger to the public health lies more in the transmitted than in the acquired disease, and whether it be permanent and dangerous or only temporary and remediable must remain for future investigation to show.

Hay Fever, or Summer Catarrh was the title of Dr. George M. Beard's (N. Y.) paper. He regards it a complex, and not a simple disease. It is most frequent in persons of nervous and nervo-bilious temperaments, and is confined to the temperate zone. Nervous patients are more benefited by a trip South than consumptive patients. It is hereditary. It is peculiar to modern civilization. It is increasing steadily as nervous diseases are increasing. The suddenness of the symptoms, the instantaneousness by which they may be cured, all point to the nervous character of hay fever. An important element in its production is, next to predisposition, heat following cold. When heat is steady, as in the South, hay fever and all nervous diseases are rare. In the absence of predisposition the exciting causes are powerless to produce the disease. It may come on in a mild form by exposure to heat or confined air at any time of the year. Like other nervous diseases, it acts vicariously, and is benefited by the tonic influence of mountain and sea air. The remedies which are most beneficial in hay fever are mere tonics. The plan of treatment proposed is, first, to prevent the disease; the patient should begin early in the spring a course of tonic treatment. It is probable that this would, with many cases, bridge over the season, or, at least, make the attacks milder. When the disease appears, the great dependence must be on local treatment, combined with tonics. It had been shown that infusoria was found in the nasal organs at all times, and even if they were found during the progress of the disease, no one could prove that they were the exciting cause. It was the common boast of the hay-fever army that the disease was peculiar to the intellectual classes. It was certainly true that the majority of cases were of a finely organized type. They were simply the persons who suffer from nervous diseases of all kinds. Concerning the pollen theory, he would only say that it was entirely untenable.

FOURTH DAY.—Prof. Maisch (Phila.) read a most valuable

and suggestive paper on *Sanitary Relations of Pharmacy and the Materia Medica*.

Elections.—Drs. J. M. Toner, Washington, D. C., President; E. M. Snow, R. I. and H. Hartshorne, Pa., Vice-Presidents; Elisha Harris, N. Y., Secretary; J. M. Ranch, Chicago, Treasurer.

On presentation by Dr. S. D. Gross, it was

“*Resolved*, That a committee consisting of a member of this Association from each State and Territory be appointed to petition Congress to institute a Bureau of Health, to be located at Washington, with a branch at the seat of each State and Territorial Government.”

On presentation by Dr. Hartshorne, it was

“*Resolved*, That this Association will urge upon the Governors and Legislatures of every State the importance of enacting laws creating State Boards of Health, providing adequate measures for sanitary administration throughout each State.”

The Association then adjourned to meet in Baltimore on the second Tuesday in November, 1875.

RICHMOND ACADEMY OF MEDICINE.

November 19th.—The Committee on Public Health reported that during October the health of the city had been better than for the same month since 1871.

A Case of Lithotomy by the lateral method, in a child $4\frac{1}{2}$ years old, was reported by the Committee, in which troublesome capillary and venous hemorrhage occurred which, not being arrested by cold, pressure, &c., was controlled only by plugging the wound. At the moment of operation, the surgeon suspected the existence of hemorrhagic diathesis; but in three days after the operation, scarlatina developed. The reporter suggests that this may have been the cause of the hemorrhagic tendency.

The same gentleman mentions the case of a man at the Church Institute, in whom the *urine is discharged through a fistulous opening in the right thigh*, about four inches below the trochanter major, and in a right line between it and the external condyle of the femur. [The fistula is the result of a gun-shot wound of the pelvis received during the war, which cut the urethra just in front of the neck of the bladder.] The discharge is under the control of the patient, but when urination occurs, the stream is expelled with force to a distance of at least two feet from the point of issue. [This is a most interesting case of a rare form of injury, of which we hope to give our readers a full report

when the result of the operation performed for its relief occurs. The patient is still under treatment at the Church Institute.]

Under *Reports of Cases*, Dr. M. L. James reported a

Case of Latent Diphtheria.—The lady had previously been the subject of malarial poisoning. When seen by the Doctor, she was very feeble, with considerable fever; pulse 120—140 per minute. The tonsil of one side was enlarged, and upon the gums were several small, whitish flakes, apparently of false membrane. Under treatment by iron, quinine and chlorate of potash, the patient slowly recovered.

Dr. W. W. Parker did not see why in this case, where there was no deposit of false membrane, the trouble should be termed diphtheria. The tendency to call all sore throats diphtheria is too great at this day.

Dr. R. T. Coleman had often seen cases in which there was only a very limited diphtheritic deposit, while the succeeding debility was considerable. He concurred with Dr. James in regard to the nature of the case reported.

Dr. L. S. Joynes read a translation of a case, reported by Tulpus, of Amsterdam (a physician of high rank of the 17th century), of the performance of the *lateral operation for lithotomy by a blacksmith on himself*. He had twice before been operated on by surgeons for stone; but on this third occasion, he placed himself in position, and cut with successive strokes until he had reached the stone, which he removed with his fingers. The calculus was egg-shaped, and weighed four ounces. A surgeon was sent for to dress the wound, and the blacksmith made a good recovery.

Dr. Hunter McGuire thought that the performance of the operation as detailed by Tulpus a physical impossibility. Incidentally he remarked that he knew of two cases of spontaneous relief of stone by ulceration through the bladder and perineum.

Dr. McGuire detailed the cases reported, page 562, regarding the injury of the hand, resulting from forcible contact against human teeth. In one of the cases a low form of inflammation occurred in the finger, which followed the course of the tendon to the palm of the hand, and to the wrist, where abscesses formed. The bone of the finger had been destroyed, and required amputation, and it is probable that amputation of the arm will now be required, because of the extension of the inflammation.

Dr. W. W. Parker had seen erysipelas due to mustard plaster, ear-rings, &c.—does not believe that tooth wounds are poisonous.

Dr. C. H. Perrow some years ago saw a case somewhat like

that reported by Dr. McGuire. The patient recovered with the loss of a finger, and with a permanently stiffened hand.

Dr. F. D. Cunningham some time ago saw one of Dr. C. H. Smith's patients who, in consequence of a bruise of the finger, had abscess of the finger, palm and forearm—the suppuration having extended along the tendinous sheaths, which could be pulled out through the openings of the abscesses. The patient lost all the fingers except one stump and the thumb.

December 3d.—Dr. F. B. Watkins read a paper upon the *Principles of Treating Uterine Diseases*, detailing an analysis of 230 cases treated by himself, which paper we hope to publish at an early day.

Dr. Edwards wished Dr. W. had said something about stem-pessaries. He was satisfied that it was rather prejudice than reason which so generally opposed their use. He had used with success Wadsworth's Uterine Elevator—simply replacing the hard india rubber stem, which seems too stiff, by one more flexible.

Dr. McCaw said that in procidentia the extra-uterine stem-pessary, and this alone, is the suitable instrument.

The Frederick County [Va.] Medical Society has recently been reorganized, with Dr. J. S. Guyer, of Middletown, President, and Dr. W. P. McGuire, of Winchester, Secretary. The meetings are well attended, and are held in Winchester once a month, when papers are read and discussed. Nearly every regular practitioner of the county is a member. We hope to hear frequently of the growing prosperity of this and like organizations all over the country, which are not only beneficial to individual members, but tend to develop interest in the several State Societies.

At the Annual Meeting of the New York Society of Neurology and Electrology, held December 21st, 1874, the following were elected officers for 1875:—Drs. Meredith Clymer, *President*; John C. Dalton, *Vice President*; Austin Flint, Jr., D. B. St. John Roosa, Edward G. Loring, Wm. H. Draper and Wm. T. Lusk, *Councillors*; John J. Mason, *Corresponding Secretary*; N. B. Emerson, *Recording Secretary and Treasurer*; and Edward G. Janeway, *Curator*.

Book Notices, &c.

Transactions of the Medical Association of the State of Alabama, 27th Session, 1874. Selma, April 13th-15th. Pamphlet. 8vo., pp. 428. J. S. WEATHERBY, M.D., President, Montgomery. B. H. RIGGS, M.D., Secretary, Selma.

The address of the President, Dr. Weatherby, is a masterly effort, in which *The Sanitary Needs of the People of Alabama and the Related Obligations of the Medical Profession* are ably stated, and argued with a force that is irresistible.

Dr. R. F. Michel's paper on the *Epidemic of Yellow Fever in Montgomery 1873*, and that by Dr. Jerome Cochran on the *Yellow Fever Epidemic of 1873*, are both very creditable and valuable contributions. We are surprised, however, at certain of the conclusions drawn by Dr. Cochran regarding the value of carbolic acid in yellow fever epidemics, some of which, in our opinion, are not warranted by the facts he states—especially in view of the different testimony of so large and learned a portion of the profession.

The *Report on Dengue* by Dr. Wm. H. Anderson (Mobile) is also valuable. The author has never known a death to result from the disease.

Cholera in Birmingham, by Dr. M. H. Jordan, and *Cholera in Huntsville*, by Dr. J. S. Dement, are papers of interest and medico-historical value that would well repay perusal and study by physicians generally.

The White Blood-Corpuscle in Health and Disease is the title of Dr. Jerome Cochran's paper—the work of a man who is evidently posted up to the hour. It gives a perfect resume of all that is known regarding the properties of these bodies.

The paper on *Hæmorrhagic Malarial Fever*, by E. D. McDaniel, A.M., M.D., of Camden, is not equal in value to the one on the same subject by Dr. W. A. B. Norcom, published in the last volume of Transactions of the North Carolina Medical Society. Dr. McD. seems to disregard the fact that the disease is purely malarial in nature, and that to remove this malarial element is to cure the disease; and hence he ignores the essential value of quinine, in order to recommend the "action on the skin" treatment. While he refers to some cases in which quinia seemed to induce the hæmaturia in the congestive stage, the paper is entirely without statistics to show the relative results of the two

radically different plans of treatment recommended by different authors. Now, in this matter, we have no personal experience—having never seen a case of the disease; and we are therefore left to form an opinion from the results of opposite treatments as practised by different physicians. But it does appear that Dr. Norcom is right in his earnest advocacy of the anti-malarial plan of treatment as the true source of dependence; while Dr. McDaniel's "skin action" treatment may be serviceable—not so much in the cure of the disease as to contribute to the temporary relief of the patient. We see no reason why the two plans of treatment may not be combined.

In the paper on *Puerperal Eclampsia*, by F. M. Peterson, M.D. (Greensboro), we find the statement, "I have used the lancet freely in every single case which it has been my fortune to treat, except the one reported [in which chloroform, potassium bromide, &c., were used successfully], and I never saw the *convulsive seizures* controlled or favorably *modified* by it in a single instance." Perhaps this observation is due to the fact that, in the Doctor's experience, as stated in another portion of his paper, "cases of *Eclampsia Puerperalis* are infrequent." But certainly the observation as to blood letting, under notice, is at variance with that of nearly all the rest of the medical world. Among other recent papers to which we would refer Dr. Peterson showing the value of phlebotomy, Dr. R. L. Payne's paper on the same subject in the Trans. N. C. Medical Society, 1874, is especially deserving of mention—which, however, seems to have been unfairly criticized in a recent number of the *Boston Medical and Surgical Journal*.

Dr. E. M. Vasser, of Dallas Co., states that he has used *Pycnanthemum Linifolium* (Virginia thyme, Mountain mint) very extensively, and has "yet to find the first case of atonic dyspepsia, without complication, that has not been benefited by it." But how often do we find such a dyspepsia *without complication*?

Dr. Goronwy Owen (Mobile) reports an interesting *Case of Occlusion of the Os Uteri at Term*, which is so remarkable in several of its features that we republish it in this issue.

The other papers in this volume are all deserving of commendation, which we have space to specify only by title: *State Aid to Hospitals*, by Dr. P. Bryce, (Supt. of the State Insane Asylum); *Contributions of Physics and Chemistry to Practical Medicine*, by T. O. Summers, M. A. S. A., (Greensboro); *Anatomy and Diseases of the Cervix Uteri*, by Dr. J. R. Weatherly; *An Interesting Case Involving the Pneumogastric Nerve*, by Dr. W. H. Anderson; *Aspergillus Nigricans*, by Dr. W. D.

Bizzell (Mobile); *Thermal Waters*, by Dr. A. L. Garnett (Tuscaloosa); and the annual oration by Dr. S. D. Seelye (Montgomery) on *Cell Life, the Basis of all Force, both Mental and Physical*.

As a whole, this volume of Transactions is one of the most attractive in style and matter that we have ever seen.

A Guide to the Practical Examination of Urine. By JAMES TYSON, M.D., Hospital Lecturer on Pathological Anatomy in the University of Pennsylvania, etc. Philadelphia: Lindsay & Blakiston. 1875. 12mo. pp. 178. Price \$1.60. (For sale by Messrs. Woodhouse & Parham, Richmond).

This is an excellent work for the purpose for which it was designed—a comprehensive manual for the use of physicians and students. The completeness of illustration in a work of this size is an unusual but a most valuable feature. “The modes of approximate estimation, so commonly used in the German laboratories, it is believed, are here published for the first time in English.”

A note received by the author from Dr. W. W. Keen, just as the last revise of the work was going to the printer, says (page 177): “I find it [chloral] will preserve urine for some weeks even, and give the chemical tests for albumen and sugar, and preserve for microscopical examination spermatozooids, epithelium (tube-casts I have yet not tried), phosphates and uric acid, etc.”

The publishers present the book in excellent style—both as to typography and binding.

Transactions of the American Medical Association. (From the Secretary, Dr. W. B. Atkinson, Philadelphia.)

We gave so extended a synopsis of the transactions of the session of this Association held in Detroit, in our July number, that we need do no more than to announce that the volume is now published in an attractive form, though we recognize many typographical inaccuracies in proper names.

The “Report on Defective Drainage as a Cause of Disease in Virginia,” by Prof. Cabell, of the University of Virginia, is so exceedingly valuable to every section of the State as to entitle it to republication in the report of the State Board of Health, should the Legislature make the necessary appropriation for the support of the Board; or, if this measure fails of

success, then the Medical Society of the State should see to it that it be republished in full in the next volume of Transactions. The Report, for the most part, relates "to the influence of soil moisture in the production of malarial and other diseases which, though elsewhere arising from more general causes, are yet more or less distinctly modified in their course and indications of treatment by co-existing malaria."

Fifth Annual Report of the Secretary of the State of Michigan relating to the Registry and Return of Births, Marriages and Deaths for the Year 1871. Lansing: 1874. pp. 376. 8vo. (From Dr. H. B. Baker.)

Hon. Daniel Striker, Secretary of State, makes acknowledgment to Dr. H. B. Baker, the present Secretary of the Michigan State Board of Health, etc., who deserves great credit for collecting, tabulating and commenting upon these statistics in the able manner that he does.

Dr. Baker calls attention to the fact that under the present system of enumerating births and deaths, a large number are overlooked, so that the figures given can be taken as only approximatively correct.

The total population of the State is estimated at 1,185,000.

The number of births during 1871 is stated at 37,038, of whom 183 were illegitimates. The per cent. of white children to white women of child-bearing ages is 11.57; of Indian children to Indian women, 16.09; and of African children to African women, 9.62. There were 10,181 marriages solemnized.

Of the total number of deaths (9,728), 1,303 were due to consumption, 696 to scarlatina, 441 to pneumonia, 372 to old age, 357 to typhoid fever, 246 to casualty, 230 to heart disease, 216 to diarrhoea, 215 to inflammation of the brain, 210 to dropsy, 184 to inflammation of bowels, 173 to brain disease, 173 to dysentery, and 153 to croup=4,969 deaths due to fourteen causes.

Legal Relations of Emotional Insanity. By E. LLOYD HOWARD, M.D., Baltimore, Md. (Reprint from Trans. Am. Med. Assn., 1874)

The Legitimate Influence of Epilepsy upon Criminal Responsibility. By MEREDITH CLYMER, M.D. New York. (Reprint from the Proceedings of Med. Legal Soc. of New York. 1874.)

Dr. Howard's paper inclines to the views presented by Prof. Hammond on this subject, while those of Dr. Clymer more nearly coincides with opinions we have already given in our October number, 1874.

Report of the Medical Commission upon the Sanitary Qualities of the Sudbury and other River Waters. Boston, 1874.

Drs. Chas. W. Swan, Edw. S. Wood and H. P. Bowditch were appointed a Commission on the part of Boston, Mass., to examine into the sanitary qualities of certain rivers around Boston, with the view of recommending that stream which was the most suitable to afford additional water supply for that city. The result of the investigation as to the sanitary qualities of the rivers places them in order of mention, viz: Shawshine, Charles, Sudbury and Mystic.

The report contains much valuable research and information that should be obtained by any similar Commission that may hereafter be appointed for any other city.

Contributions to the Annals of Medical Education in the U. S. before, and during the War of Independence. By JOSEPH M. TONER, M.D., Washington, D. C.

Dr. Toner will ever be entitled to the thanks of the profession for his untiring energy in advancing its interest. In presenting the present volume of 118 pages, he furnishes a work of remarkable interest and historic value, in which brief biographies of scarcely less than 800 prominent physicians of the colonial times are given.

As a suggestion growing out of a perusal of the book, it seems to us eminently proper that each State Medical Society should appoint standing committees to collect and systematize all the information of medical interest connected with the profession of their several States, and to compile such information into the form of reports once in ten or twenty years, to be published in the usual volumes of Transactions.

Reports of the Eastern and of the Central Lunatic Asylums, (Virginia) for the year ending September 30, 1874.

The Eastern Lunatic Asylum is the oldest institution of its kind in the U. S. We are glad to see the favorable report of the Board of Directors of the present management under the superintendence of Dr. D. R. Brower, aided by his very competent assistant, Dr. John R. Clopton. The buildings, &c., need extensive repairs, and as no appropriation for this object has been made for many years, we sincerely hope the Legislature, now in session, will appropriate a sufficient amount.

Virginia was likewise the first State in the Union to make special provision for its insane colored population—the Central Lunatic Asylum is solely for their accommodation, with an excellent corps of officers under Dr. Barksdale's superintendence.

Editorial.

SUMMER SESSIONS IN SOUTHERN MEDICAL SCHOOLS.

We have received the annual announcement of the Spring and Summer session of the Medical College of Virginia, and on the 8th advertising page will be found an advertisement.

The idea that in the present advanced state of the science of Medicine young men can resort to our colleges for two sessions of four or five months each, as they formerly did, and acquire a proper knowledge of their profession is a proposition too preposterous seriously to combat.

But little less preposterous is the thought of young men that they can, by devoting themselves to study at home during the interval between the winter sessions, meet the requirements of the case. With the natural tendency to indolence which belongs in a greater or less degree to the whole race; with the allurements of pleasure, and those of the companionships of home, and of the floods of literature of so much easier reading, the student who would faithfully devote himself to Medicine would be a moral curiosity.

But even in the case of that one diligent student, could he be found in a hundred, with the most favorable conditions of preceptorship, his advantages at home would be greatly less than they would be at College. Medicine, like all the other physical sciences, can only be successfully learned by illustration. The means of proper illustration can only be found in the schools.

But more than this, experience has shown to demonstration that there is a leverage in the system of regular appointments in which the student incurs responsibilities to others as well as to himself; there are quickening influences in the face and voice of the living teacher, and the companionship and emulation of kindred minds, that gives the student at college an incomparable advantage over the lonely unfortunate who, by main strength, has to make at home the Titanic struggle against Fate.

As to the particular School whose announcement has called forth this notice, we need say nothing to the profession or public here in Virginia. The excellence of its appointments are known.

We may say a word for the ear of our more Southern sister States. Besides didactic and clinical advantages of a high order, in a climate not too enervating for successful application, the Southern student will, in our beautiful and growing city, find social surroundings congenial and promotive of that undisturbed contentment favorable to the prosecution of science.

Your fathers and brothers fought for Richmond with a heroism which has immortalized them, and made her historic in all the annals of time. Those sacrifices are remembered here. Richmond makes one return. She offers Southern young men a home for that training which, in a different field, will make them not less illustrious, and crown their toils with a glorious success.

Acknowledgements.—Our thanks are returned to Messrs. E. F. Houghton & Co., of Philadelphia, for a box containing several of their preparations of Cosmoline, which is obtained by a process of distillation from petroleum—the residue being purified and decolorized by animal charcoal—and possesses many of the virtues belonging to the latter agent. As a substitute for lard in the preparation of many of the ointments, it also has the advantage over that excipient in never becoming rancid. It does not evaporate below 400°. It is gaining favor with physicians.

We return thanks also to Mr. Samuel Ayres, of this city, for a sample of his hernial truss, which is so simple in construction and yet so valuable in practice that the wonder is that none before him has happened to hit upon the right instrument—especially as there can be but little difference of opinion as to how such a truss should act.

Amusing (?)—Some of the typographical errors in our December number. The cut in the advertisement of Mr. I. B. Seeley was upside down—a position which none of the goods to be had of this established firm occupy in the estimation of its customers. The mortuary table, page 580, was for *October*, and not for November, as printed. Nor did we write but one editorial on the State Board of Health—the other being on the proposed *State Board of Medical Examiners*.

Journalistic.—Dr. E. S. Gaillard, of Louisville, Ky., editor of the *Richmond and Louisville Medical Journal* and the *American Medical Weekly*, makes to the public this unusual and liberal offer: To subscribers to the first journal twelve handsomely engraved portraits of distinguished European and American physicians; to subscribers to the *Weekly* one of these portraits in each of the two volumes for 1875. The price of the first journal is \$5 annually, and that of the last \$2 for the same period.

The Southern Medical Record will hereafter be published by the Southern Publishing Co., Atlanta, Ga., at \$3 per annum. To those sending in a new subscriber, one of Powell's Pocket Formulary will be given.

The Medical Record, New York, Wm. Wood & Co., publishers, begins the new year as a weekly at \$5. It was formerly published as a semi-monthly.

The Boston Medical and Surgical Journal changes publishers—Messrs. David Clapp & Son having sold out their interest in the *Journal* to Messrs. H. O. Houghton & Co., 219 Washington st., Boston.

The appearance of the first number of the *West Virginia Medical Student* has been delayed on account of the recent sickness of the editor, Dr. Reeve, of Wheeling. We hope he will soon be able to enter upon the discharge of his editorial duties.

The November number, 1874, of the *Archives of Electrology and Neurology*, Dr. Geo. M. Beard, N. Y., editor, is full of interesting matter. The price of the journal is raised to \$3 per annum.

Scribner's Monthly, (published by Scribner & Co., 654 Broadway, N. Y.) and the *Popular Science Monthly*, (published by D. Appleton & Co., N. Y.) for January, 1875, come to hand remarkably replete with interesting matter. Doctors too frequently do themselves an injury by omitting their *general* literary and scientific reading, for certainly no class should possess a more liberal culture or a wider range of information. In no way, engrossed with the cares and duties of the profession as they are, can they receive so much general information as by

taking such journals as those above mentioned. The annual subscription price of *Scribner's* is \$4, and that of the *Popular Science Monthly* is \$5.

An Old Gentleman, accompanied by his son, went partridge-hunting. Before they reached the field where they expected to find the game, the gun was charged with a heavy load. When at last the old gentleman saw a bird, he took a rest and blazed away, expecting to see the birds fall by the wholesale; but it did not so happen; for the gun kicked with so much force as to knock him over. The old man got up, rubbed the sparks out of his eyes, and inquired of his son: "Alphy, did I point the right end of the gun at the birds?"

Query.—Are not some physicians like this old man—overdose their patients, or prescribe improper agents, and then express great surprise at the result, or else charge the apothecary with making a mistake as the cause of an unexpected calamity?

The Deaths in Richmond during 1874 numbered 1,566—717 whites and 849 colored. The total number of deaths was 471 less than during 1873—notwithstanding the fact that there has been a steady increase in population.

Hemorrhagic Malarial Fever, (?) we are informed by private letter from Dr. W. S. Stoakley, made its appearance in Northampton Co., Va., during the past fall. He mentions a couple of interesting cases as having occurred in his practice.

The Virginia Legislature has not yet made any enactment regarding either the proposed State Board of Medical Examiners or the appropriation to the State Board of Health. The friends of these measures should apply themselves diligently to secure the favor of Legislators.

The Delay in the appearance of this number has been due somewhat to the Christmas holidays, and also to the accidental injury by gunshot wound and death of Mr. L. H. Fore, who was in charge of the printing of the *Monthly* in this office. Future numbers will appear punctually about the first of the month.

Virginia Mortuary Statistics for November, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Health Officers.....		Dr. J. G. Cabell.				Dr. W. M. Wilson.				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		31	12	22	25	9	7	9	10	3	1	9	3
Number still born.....		4		16		1		3		1		3	
AGES. Ages unknown calculated.	Under 1 year.....	12		4		Color not given, 9				Color not given, 4			
	" 3 years.....	2		1		" " " 4				" " " 2			
	" 10 ".....	1		7		" " " 4				" " " 1			
	" 20 ".....	2		1		" " " 1				" " " 1			
	" 30 ".....	4		8		" " " 7				" " " 1			
	" 50 ".....	13		8		" " " 5				" " " 3			
	" 70 ".....	10		7		" " " 5				" " " 3			
	" 80 ".....	8		4		" " " 1				" " " ..			
" 100 ".....	1		3		" " " 1				" " " ..				
	Over 100 ".....	...		...		" " " ..				" " " ..
Most frequent Causes of Death.	Accident, Wound, &c.....	2		2		1		1		.....		.....
	Apoplexy, Cereb. Hem'ge, &c.....	1		1		.....		.....		.....		.....
	Aphidæ.....	.....		.....		1		1		.....		.....
	Asthma.....	2		.....		.....		.....		.....		.....
	Birth, Premature.....	1		1		.....		.....		.....		.....
	Bronchitis.....	1		1		.....		.....		.....		.....
	Brain Disease.....	.....		1		.....		.....		1		1	
	Congest. Bowels, Lungs, &c.....	1		1		2		.....		.....		1	
	Consumption.....	12		12		2		3		1		1	
	Croup Pseudo-Membranous.....	2		.....		.....		.....		.....		.....
	Diarrhœa, Dysentery, &c.....	4		3		2		.....		.....		.....
	Diphtheria.....	1		1		2		.....		.....		.....
	Dropsy.....	.....		2		.....		.....		.....		1	
	Fever, Malarial.....	1		.....		.....		1		.....		.....
	" Typhoid.....	2		1		1		.....		.....		.....
	Heart Disease, Hemorrhæ, &c.....	.....		.....		1		1		1		.....
	Inanition, Old Age, &c.....	2		3		.....		2		.....		1	
	Meningitis Cereb. Spinal.....	.....		2		.....		.....		.....		.....
	" Tubercular.....	.....		.....		1		.....		.....		.....
	Paralysis.....	.....		1		.....		2		.....		.....
	Pleurisy.....	.....		1		.....		.....		.....		.....
	Pneumonia.....	.....		3		1		2		.....		2	
Scarlatina.....	1		.....		.....		.....		.....		.....
Syphilis.....	1		.....		.....		1		.....		.....
Trismus Nascentium.....	1		.....		.....		1		.....		.....
Tumors, Ovarian & Uterine.....	3		.....		.....		.....		.....		.....
Whooping Cough.....	.....		.....		.....		2		.....		.....
		Census taken in February, 1874.				Population is estimated.				Population is estimated.			

VIRGINIA MEDICAL MONTHLY.

VOL I. RICHMOND, FEBRUARY, 1875. No. 11.

Original Communications.

Cystorrhœa, or Subacute Inflammation of the Mucous Membrane of the Bladder. By JOHN P. METTAUER, M. D., LL. D., Worsham, Prince Edward Co., Va.

To Dr. G. French, of Fredericksburg, Va., is due the credit of having first employed vesical injections of irritating qualities of active nature in the treatment of subacute cystitis in the United States, as far as the writer of this paper has been able to ascertain. He used them as early as 1800, as indicated by a paper published by him in the first volume of the *American Medical Recorder* for 1818, page 507. Injections, however, had been employed in chronic cystitis by European physicians before Dr. French's cases were reported, but they were chiefly of mild unirritating qualities. In the tenth volume of Dr. Duncan's *Medical Commentaries* a case is reported by a Mr. Brown, surgeon in Messelburg, Scotland, in which an injection of linseed oil and lime water was used; but on account of the intense pain caused by it, it was laid aside. Dr. French reports three cases in the *Recorder*, referred to above, successfully treated by him with injections formed of nitrate of potash, mucilage of gum tragacanth, and camphorated tincture of opium, according to the following recipe:

R. Potas. nitrat	℞j
Mucilag. gum tragacanth	℞xij
Tinct. opii camphorat.....	℞iss—℥ss

And the injection formed of these constituents was used in quite large quantities. The paper of Dr. French is an instructive, and, in many respects, an interesting one, and will repay

the careful reader well for the time he may spend in reading it; and it was the study of the cases reported by Dr. French which led the writer, when a very inexperienced and young practitioner of medicine, to adopt his present mode of treating cystorrhœa—subacute or chronic inflammation of the bladder—muco-vesico cystitis, irritable bladder, ulceration of the vesical mucous lining, and some others, the various denominations by which the disease has been distinguished.

Few diseases cause more suffering than this affection of the bladder; and, while it does not immediately endanger life, it should nevertheless be regarded with profound interest by medical men. Out of hundreds of cases with which the writer has been directly and indirectly conversant, he recollects only three fatal terminations, and these, unfortunate as they were, he believes might have been relieved if the sufferers could have been induced to submit to treatment. For more than thirty years he has been in almost daily intercourse with the disease, and, after many painful and anxious contests as medical adviser, as well as disappointments in the employment of methods formerly relied on, the treatment he now employs was adopted by him; and he repeats that he is indebted to the paper of Dr. French, already referred to, for the valuable hint which lead him to adopt it.

It will not be necessary to indulge in speculations in regard to the pathological conditions of the bladder in this disease, only so far as may be necessary to determine the grade of morbid action demanding the caustic treatment; and the writer will state, briefly, that the symptoms, both local and general, seem clearly to indicate the existence of a disease based in subacute inflammation, or neuro-phlogosis, differing from neuralgia by reason of the contiguous structures having become slightly inflamed, and their nutritive actions somewhat perverted. The disease, generally, is unattended with acute inflammation, and when a febrile state accompanies it the fever is of the irritative description. If thickening or ulceration occur, they are due to protracted nervous ataxia which, sooner or later, perverts the nutritive exercises, but not to the extent of inducing acute inflammation. The irritation which induces the disease is often, nay, generally, sympathetic; and when so, uterine and rectal troubles are gen-

erally the parent diseases. The writer has rarely treated uterine affections or protracted examples of fissure of the rectum with females without finding it necessary to employ caustic injections to the bladder before dismissing the patient. In some examples the parent disease is so slight as to render it questionable whether the vesical affection could have been induced by it; and frequently such cases, apparently slight, prove rebellious and difficult of treatment. Not unfrequently much difficulty is experienced in these cases, as well as those of more violent character, in deciding which is the parent disease; and in such cases the safest plan is to treat both affections, but not at the same time.

Preliminary to the use of the vesical injections, the writer has, in most cases, premised a course of preparatory treatment, consisting of demulcent drinks, aperients if there is constipation, restrictions in diet, and exercise; and, if an oxaluric diathesis is suspected, the nitro-muriatic acid mixture. In some urgent cases, however, he has departed from this rule and commenced the vesical injections at once. A remarkable example of this description came under treatment, in which the injection was used a few hours after the lady arrived in the neighborhood of the writer. The patient had suffered intensely for nearly a year, and, to use her own language, had "slept, eaten and drank nearly the whole time on the Peo." The first injection, although imperfectly administered late in the evening, was followed by a good night's rest, and only three applications were required to effect a cure.

The injections employed by the writer consisted of pure nitrate of silver, dissolved in rain or spring water, in the proportion of four to ten grains of the former to one ounce of the latter, and from one to three ounces to be used at a time, retained not more than ten minutes. Before the injection is introduced, the bladder should be carefully washed out with tepid water; and to insure the complete application of the caustic solution to the entire surface of the mucous lining of the vesical cavity, the patient should rotate her body from side to side, and before discharging the injection should sit up a few moments, so as to allow the cervix to be well impressed where, in a majority of cases, the chief irritation exists. In most cases, the injection causes considerable pain, made up of burning sensations, straining, and

almost constant desire to micturate. The pain, however, is generally of short duration, more particularly if the vesical disease is slight; yet, in some cases, it continues nearly throughout the day, and now and then for several days, especially in the more violent examples of the vesical disease. The injections may be repeated after intervals of 7 to 12 or 15 days, according to circumstances. It will be improper to repeat them until the bladder has recovered completely from a previous operation. In a majority of cases, from three to five injections will be required. Now and then a single one will effect a cure, while occasionally a great many will be demanded. As the treatment progresses the intervals may be lengthened; and as the disease ameliorates the injections become less painful, even if used of greater strength. The lessening of the pain of the injections, as well as the moderation of the original symptoms of the cystorrhœa, together with the improvement of the general health, both corporeal and mental, are to determine as to the necessity of continuing the treatment. The writer, after several injections had been administered, and marked amelioration of the symptoms was discoverable, generally suspended the topical treatment for a few weeks, using during the time such other remedies as the cases may require; and, if the bladder is still disquieted, to resume the injections; he, however, has rarely been required to resume them.

In some cases, the nitrate of copper seems to meet the indications better than the lunar caustic, and the writer thinks such examples are generally to be met with in scrofulous subjects. These examples are often attended with ulceration of the mucous lining of the bladder, thickening of its walls, purulent discharge, and hemorrhage. This nitrate may be used in solution and of the same strength of the nitrate of silver, as well as after like intervals.

The constitutional treatment of this affection, in a majority of cases, will only be required to guard against the possibility of inflammation, and to repair the general health if it has materially deteriorated. In most cases, keeping the bowels in an easy, soluble state will meet the indications fully. If debility exists, suitable tonics will be required; and if an oxaluric diathesis is suspected, the nitro-muriatic acid mixture should by all

means be used. Throughout the treatment, both topical and general, demulcent drinks ought to be employed. Narcotics will sometimes be required when the post operation pain is violent, or when patients are restless of nights. And, generally, the diet should be restricted, and condiments avoided known to act through the bladder.

The instruments necessary for injecting the bladder are a gum catheter of proper size, and a glass syringe or gum elastic bag. In my first operations I employed a female catheter and a small bladder, and found them to answer very well. I now use a gum catheter and a small vulcanized gum bag. The bladder just referred to recalls vividly to my mind two operations I had to perform when a very young practitioner—one paracentesis abdominis, the other catheterism in a dangerous case of retention of urine. The ascites was so alarming as to require an immediate operation. I was a considerable distance from home; had no catheter with me; delay was out of the question, as it would certainly have lead to the death of the man, so I tapped the man with my thumb lancet and a reed pipe-stem, and saved his life. The case of retention was equally threatening, and, being environed with similar difficulties, I drew the water off with a moderately long pipe-stem of reed, curved somewhat by heating and then bending it, and also saved the poor sufferer's life. During these early professional times, country practitioners often had to resort to makeshift expedients, and frequently of very rude characters, as in the cases just referred to. A practitioner of medicine, who chanced to be present when the operation for ascites was performed with the pipe-stem, became faint, and would certainly have swooned if he had not been carried out of the room into fresh air.

The comparatively mild treatment of cystorrhœa, which the writer has briefly described in this paper, has succeeded in affording relief in a vast number of cases, many of them attended with great suffering, and, generally, after only a short time. Indeed, it may be stated that the failures referred to in the early part of this paper, three in number, are the only ones. The object in preparing the paper was merely to place the experience of the writer before the profession in a condensed form, but explicit enough to enable the reader to comprehend the

method adopted by him in treating this painful disease, and to analyze the results referred to generally, from which to draw his own conclusions as to their value and safety. No intention of presenting a memoir on the subject or of condemning other methods influenced him. Of course, as a method is recommended through the paper differing from those generally employed, but more especially those by opening the bladder, and by tubular drainage, condemnation seems implied; and the writer will say, professionally, that he would never resort to those disgusting methods as long as that now employed by him continues to cure his patients with so little trouble and suffering.

ART. II.—*Causes and Nature of Diphtheria, with a Review of the Bacterian Theory.* By J. LEWIS SMITH, M. D., Physician to New York Infant Asylum; Physician to Charity Hospital, Blackwell's Island, N. Y.; Consulting Physician to Class of Children's Diseases Out-Door Department of Bellevue, etc, New York.

It is well known that prior to the time of Bretonneau, very little had been ascertained in regard to the causes and nature of diphtheria. In the celebrated memoirs of this physician, published twenty-five years ago, cases were related and arguments presented to show that diphtheria has a specific virus, which is communicable from person to person by inoculation, and in no other way. Bretonneau excited an interest in the study of this malady, which, kept alive by the frequent occurrence of severe epidemics, continues unabated; and the result of numerous clinical observations has been, not only to establish firmly the doctrine of contagiousness by inoculation, or contact, but also to render highly probable, indeed to fully demonstrate, the contagiousness of diphtheria through the breath of the patient, and through exhalations from his surface; so that, as Niemeyer says, diphtheria should be classified "among the infectious diseases, and even among those that are most typically contagious."

Having determined thus much, it seemed that clinical observation could go no further in detecting the cause and elucidating the nature of diphtheria; but lately, a new line of investigation has been followed, namely: that of experimenting upon animals,

the results being observed by the microscope; and while it has led to the confirmation of facts, already ascertained, important discoveries have been made, and more important ones are probably in waiting. Those who have taken the lead in this new field of investigation, are Oertel, Bühl and Hueter, of Germany. These microscopists and several other experimenters of equal reputation, confirm their views, believe that they have discovered the cause of diphtheria, standing, as Oertel says, "on the very borders of the visible," with a high power of the microscope.

This discovery is so important, not only in itself, but from the promise which it gives of the results of future research, and from the stimulus which it imparts to such inquiries, that a brief statement of the facts in reference to it cannot fail to be interesting at the present time, when diphtheria is so prevalent and fatal in this city and country. The minute objects which the observers alluded to have discovered in patients affected with diphtheria, and which, they suppose, cause the disease, are endowed with life and motion. They belong to the class of microscopic vegetable parasites, which have been designated *bacteria*. The bacteria have been divided by Cohn into four genera, with species; but only two of these, it is thought, sustain a causal relation to diphtheria, namely: the sphero-bacterium or spherical bacterium, or, as Oelsen designates it, the *micrococcus*; and secondly, though in less degree, because less numerous, though coexisting with the other form, and penetrating the tissues with it, the *micro-bacterium*, or rod-like bacterium.

In every tissue, which is the seat of diphtheritic inflammation, and in every diphtheritic pseudo-membrane, the spherical bacteria occur in immense numbers, accompanied by a smaller number of the other kind. In severe cases in which the system is infected, they occur also in the blood. Ordinarily, as the symptoms of diphtheria become more grave, a proportionate increase in the number of spherical bacteria can be demonstrated by the microscope. They are found in the discharge from the edges of the wound produced by tracheotomy, performed in the treatment of diphtheritic laryngitis, and upon these edges they multiply rapidly, just before a pseudo-membrane forms. If, upon any surface which is the seat of ordinary catarrhal inflammation, other vegetable organisms, as the *leptothrix buccalis*, or *oidium*

albicans, are present—if diphtheritic inflammation supervene, these organisms diminish and disappear, as if deprived of the required nutriment, and are succeeded by the sphero- and micro-bacteria, which increase in numbers as the specific inflammation extends. On the other hand, when the diphtheritic inflammation abates, these bacteria disappear, and other vegetable forms may succeed. In the very commencement of diphtheria, the grayish, white spots which appear upon the inflamed surface, consist entirely of these bacteria, with epithelial cells and mucus, while fibrin and pus appear at a later period, as a result of inflammatory reaction.

The microscope having revealed these interesting facts, various experiments were made by Oertel, Hueter, Von Trendelenburg, Nasseloff, Eberth and others, in order to determine more fully the exact relation of the sphero-bacteria and micro-bacteria, to diphtheria. These organisms were not found in the croupous membrane, produced by the application of a powerful chemical agent, as ammonia, nor upon the inflamed surface underneath the membrane, “although the fibrinous exudation afforded a soil which varied little or not at all in its histological and chemical composition from that induced by diphtheria.” (Oertel). The mucous membrane of the air passages, the cornea and muscles in animals, were inoculated with diphtheritic matter, and these two kinds of bacteria were found to increase rapidly, penetrating the tissues in a short time, and infecting the system. Oertel says: “I have noticed in numerous inoculations that if various bacteria, besides the micrococcus, as, for instance, bacillus, spirillum and bacterium lineola, were present in the matter to be inoculated, only micrococci (sphero-bacteria) and the bacterium termo (in its most minute forms accompanying them) showed evidence of prolific growth, while all the other forms disappeared altogether.” Nasseloff and Eberth inoculated the cornea with diphtheritic matter, and found that the sphero-bacteria and micro-bacteria penetrated its layers, forcing them apart, and causing within a few days intense keratitis and the death of the animal by infection of its blood. “In the same way,” says Oertel, “according to my experiments, the bacteria spread over the mucous membrane of the trachea, beset the cellular elements, crowd especially into the young exudation cells, or are taken up

by them, and gradually cause their dissolution; they fill the blood and lymph vessels, and bring about, in a mechanical way, a damming up of the fluids, and, as a consequence, serous exudation. As they close up the capillary vessels, they occasion stagnation in the blood circulation, which induces disturbance of nutrition in the walls of the capillaries, and even rupture of the same. Muscular fibres, also, which are covered and filled with colonies of micrococci, degenerate and slough; in like manner, in severe cases, immense numbers of bacteria appear heaped up in the uriniferous tubules and Malpighian corpuscles of the kidneys, and occasion there parenchymatous inflammation, capillary embolism of the glomeruli of the kidney, with ruptured vessels and formation of epithelial casts in the tubes. In the lymph and blood streams (compare also Hueter), where, in long continued sickness of the animal experimented on, these bacteria also accumulate in masses. They induce as excitors of decomposition and disorganization of organic nitrogenous bodies, septicæmia, through the vegetative process they undergo, and through their relation to oxygen."*

Finally, Erfurth repeatedly inoculated the cornea with a negative result, using for the purpose diphtheritic material from which the bacteria had been separated by agitation and filtration.

*Exception must, however, be taken to these views of Oertel. It does not seem probable that the bacteria accumulate in such masses in the internal organs that they become "exciters of decomposition" in them, and thereby produce septicæmia. Wagner (Ziemssen's Cyclopædia, Vol. VII) made many carefully conducted post-mortem examinations in cases of diphtheria, and his records of the lesions do not support Oertel's opinion in this respect. That capillary embolisms, with infarctions, and in more protracted cases, the so-called metastatic abscesses, are not infrequent lesions in severe diphtheria, occurring not only in the kidneys, but also in the lungs and other organs, and in the connective tissue, is well known. And these lesions, as well as inflammation of the surface of the heart, which is also sometimes present, are known to be common results of septicæmia. But the occurrence of septicæmia has another, and, in my opinion, a more plausible explanation, namely: that it results from absorption of decomposing diphtheritic exudations. Bouchut thus enunciates his opinion: "Diphtheria is * * * at first a local disease, complicated by absorption from the wound, and from this absorption springs the general infection, the endocardial vegetations, the endarteritis, the infarctions of the cellular tissue and of the lungs, which are frequently followed by pulmonary abscesses if the patient lives long enough."

The importance of such experiments cannot be too highly estimated. In the opinion of those who have performed them, the conclusion is inevitable that diphtheria is produced by bacteria, which, coming in contact with the mucous membrane, or the cuticle deprived of its epidermic covering, adhere to it; and these multiplying rapidly, burrow through the tissues, and entering the vessels, infect the whole system. The reason assigned why diphtheritic inflammation in most cases appears primarily and chiefly upon the faucial and nasal surfaces, is that the air, which contains the germs of the bacteria, constantly passes over these surfaces, and, as regards the fauces, the ingesta also, which may contain them. The important practical inference from this theory is, that diphtheria is entirely local in its commencement, and is amenable to local measures.

These experiments, apparently so conclusive, and the brilliant results claimed for them, probably produce at first in most persons engaged in microscopical or pathological studies, a degree of enthusiasm in the belief that a new era is dawning in our knowledge of the contagious and miasmatic diseases. And since the German microscopists and pathologists have no equals, we accord to their researches and opinions a degree of credence which we are reluctant to yield to our own scientists who are engaged in similar studies.

But the causes and nature of a disease cannot, in general, be fully elucidated by experiments alone, such as have been detailed. They should be aided or supplemented by clinical observations, and of these, as regards diphtheria, we have had an abundance in New York during the past fifteen years. Clinical observations may modify or correct the theories derived from the results of experiments.

Two distinct propositions are evidently included in the bacterian theory, to-wit: that bacteria cause diphtheria, and secondly, that this disease is at first local, and that afterwards it becomes constitutional or general by the entrance of the specific principle into the blood. Whether diphtheria is primarily local or primarily constitutional, or is in some at first local and in others at first constitutional, is of course a distinct proposition from that regarding the relation of bacteria to the malady; and whatever the truth may be in reference to the one, does not affect the other.

A fact in support of the view that diphtheria is primarily local, I think all physicians who have seen much of diphtheria have frequently observed, namely: that this disease may commence with high fever and other grave symptoms, and a genuine diphtheritic pseudo-membrane begin to form upon the fauces; and yet, by prompt and judicious treatment, these symptoms abate, the inflammatory redness and exudation disappear, and the health is fully restored within three or four days. What satisfactory explanation can there be of such cases in which restoration to health is so rapid, except one based on the supposition that the blood was not yet contaminated—the disease being eradicated when it was still local? I do not wish to be understood as saying that this is the usual result of early and judicious treatment, but as one not infrequent.

If, on the other hand, diphtheria has continued four or five days when the physician is called, and such instances are common among the poor of New York city, however thorough and judicious the treatment, the malady is seldom cut short as in the other cases. There is now a manifest cachexia and an obstinacy in the symptoms, which contrast strongly with the cases just alluded to. Why this difference, except that in these last cases diphtheria is no longer local, but has involved the blood and the entire system? Again, the fact that in almost all instances the primary manifestation of diphtheria is at one point only, as upon the fauces, and that afterwards various diphtheritic inflammations may occur in different parts of the system, favor the idea that the contagious principle at first acts only locally, and that subsequently it infects the whole system.

Nevertheless, any theory which regards diphtheria as always a local malady in its commencement, will not, I think, be accepted by physicians who see most of the disease. Although it may be true as regards many or most cases, there are others in which, from the severity of the initial symptoms and the little amount of local disease, there is every reason to suppose that the blood is already contaminated. Probably in these cases the contagious principle, whether bacteria or something else, has entered the blood through the lungs. Thus, cases are not infrequent in which there is on the first day a temperature of 102° or

103°, with pulse from 120 to 160 per minute, and yet there may be no pseudo-membrane, and but a very moderate amount of faucial inflammation.

Again, does not the fact of an incubative period of several days, in certain cases of diphtheria, indicate that in these cases the blood is infected prior to the occurrence of the local phenomena? Although the diphtheritic virus in most instances begins to act within two to five days after exposure, there is, in other instances, an incubation of a week or ten days. We cannot suppose that all this time the virus has been clinging to the throat in a quiescent state. It is more probable that it has entered the blood directly through the lungs, and that, in this fluid, it has increased in quantity or intensity, till it was sufficiently energetic to produce the inflammation upon the surface. Clinical experience, therefore, I think, justifies the belief that diphtheria is, in certain cases, a constitutional malady in its commencement, while in other cases, if not in most, it is primarily local, and subsequently constitutional. But the theory that bacteria cause diphtheria is not, of course, invalidated by the admission that the blood or system is sometimes infected before there is any local manifestation of the disease. Its truth or falsity must be determined by other considerations.

The view that diphtheria is caused by fungi receives support from the fact that it prevails most in places which are favorable to the development of low forms of animal and vegetable life, viz : in filthy and crowded apartments, along streets and alleys, and on low grounds, where vegetable and animal refuse collects. The contagious principle of diphtheria, therefore, if not the sphero- and micro-bacteria, has, to say the least, similar conditions for its development. It is, no doubt, some substance or entity which, if not already, may yet be discovered, either by the microscope or chemical analysis; and the phenomena of the disease indicates that if it be not the bacteria, it is, in all probability, something which is, in certain respects, similar to them.

But while certain facts lend support to the bacterian theory, certain other facts show, in my opinion, that there must be some other cause of diphtheria which is distinct from the bacteria. These facts the advocates of this theory have too much ignored. They are the following: In the intervals of epi-

demics, and in localities where diphtheria has not occurred, or has occurred rarely, the microscope discloses the existence of bacteria, which seem to be identical with those found in diphtheritic inflammations, and in sufficient numbers to justify the belief that they frequently pass over the fauces in the inspired air. Again, bacteria, which seem to be identical with those of diphtheria, are frequently found upon the gums, between the teeth in a state of health, where they produce no perceptible irritation. How remarkable, if the bacterian theory is true, that fungi, which, under ordinary circumstances, are innocuous, should exhibit the fearful energy and destructive power which we observe in diphtheria! It has been, however, suggested to me by a physician familiar with microscopical and pathological studies, that the diphtheritic bacteria may yet be ascertained to be different from the ordinary micrococcus, since the bacteria are very numerous, and it is very difficult to distinguish or identify organisms, which are "just on the borders of the visible." A fact which, till it is satisfactorily explained, must produce skepticism, it seems to me, in regard to the bacterian theory is, that the bacteria do not irritate the lungs. Certainly, if during inspiration, certain of them, carried along in the current of air, are arrested upon the fauces, where they produce the specific inflammation, a larger number must enter the lungs, where, we would suppose, from the delicate structure of these organs, and their proneness to inflammation, they would produce a general and severe pneumonia. So far from this being the case, pneumonia is a rare complication of diphtheria.

Since the publication of the bacterian theory, I have made microscopic examinations of diphtheritic pseudo-membranes, in order to observe the form and movements of the micrococci and the effect upon them of the medicinal substances which I have been in the habit of applying to the throat in diphtheria. With a magnifying power of 500 diameters, these parasites are seen as dancing or oscillating points, or rather as minute cells, shining or opaque, according to their distance from the eye. No one can, I think, observe their constant motion without admitting that they may, when in colonies, be irritants of the tissue with which they are in contact in the system, thus producing or intensifying the inflammation; and without also believing, since they are so

much smaller than the blood corpuscles, that multitudes of them must enter the circulation, since, in the deepest portion of the pseudo-membrane, they are in immediate relation with the capillaries. It is not improbable, in view of these facts, that the spanæmia of diphtheria is partly attributable to these organisms in the lymph and blood, for they could hardly exist in these liquids in any number without interfering seriously with the nutritive process?

It is evident that the truth regarding the relation of bacteria to diphtheria lies in one of two hypotheses—either that these parasites are the specific virus, and therefore cause the disease; or that the cause is something more subtle not yet discovered which so alters the tissues and the blood that they become a nidus in which the bacteria are early and quickly developed, so that from being few and innocuous in the system, they occur in myriads.

My own belief is more and more confirmed that the latter is the true theory, and that Oertel and his associates have mistaken a consequence for a cause. I have lately, with my friend, Dr. Keitzmann, recently of Vienna, a most excellent microscopist, examined the secretions and exudations upon the fauces in various cases of pharyngitis, both diphtheritic and non-diphtheritic; and we have always found the micrococcus in abundance in the inflammatory product, whether diphtheritic or non-diphtheritic, a secretion or exudation, if it had remained for some time upon the surface of the fauces. In one case of simple pharyngitis no micrococcus could be discovered on the first day in the secretion which lay in the depressions over the tonsils, while on the second day numerous micrococci had appeared. The micrococcus in the inflammatory product upon the fauces certainly does not indicate disease of a specific nature. Does not also the general prevalence of inflammatory throat affections, some of which are very mild, during an epidemic of diphtheria, indicate an obscure meteorological cause of the disease quite distinct from the bacteria?

It is customary in medical treatises to classify diphtheria among the acute, infectious diseases, since it is due to a specific virus. It is placed, therefore, in the same category with scarlet fever and measles. Unlike those diseases, however, it often oc-

curs in a secondary, as well as a primary form. It is an interesting and an important fact, that diphtheria, instead of being incompatible with other distinct morbid processes, is apt to engraft itself upon them, and especially upon the other acute infectious diseases.

"Diphtheria," says a foreign writer, "develops very rapidly under the influence of poisonous miasms—during the prevalence of hospital gangrene, putrid fevers and bad epidemics of typhus fever, and under these circumstances it not infrequently reaches its highest point of virulence and its widest extent."

In this city, most cases of secondary diphtheria occur as complications of scarlet fever and measles. The mortality, indeed, of these eruptive fevers is greatly increased by the frequent superposition of diphtheritic inflammation upon the fauces or in the larynx in cases which would otherwise do well.

Diphtheria has scarcely been absent from New York for a single season during the last ten or fifteen years—the primary form predominating during diphtheritic epidemics, and the secondary form in the intervals, and during epidemics of scarlet fever and measles. Diphtheria may, indeed, be properly designated an endemic in this city.

Diphtheritic inflammation, as is well known, attacks by preference such exposed surfaces as are deprived of their epithelial or epidermic covering, and especially such surfaces when they are already irritated or inflamed. It attacks most quickly and violently such inflamed surfaces when there is a low vitality of the tissues, whether produced by the primary disease or habitual. In this fact I find an explanation of the frequent complication of scarlatina and measles by diphtheria, as already alluded to; for in these eruptive diseases an inflammation is already established upon the fauces and in the air passages, affording a nidus in which the diphtherite virus, whatever it is, lodges and is developed. The following are interesting examples of the fact which I have stated, though the profession are familiar with similar examples. During my recent term of service in one of the foundling asylums, in which diphtheria was prevailing, three children, who were under treatment for granular eyelids, had diphtheritic conjunctivitis, with great swelling of the lids. A medical friend

was summoned to a child who had great febrile movement and convulsions. The family had employed a foot-bath so hot that the feet were blistered. On the following day the blistered surface was covered with an exudation which so closely resembled that in diphtheria that although there was no pseudo-membrane upon the fauces, the doctor suggested that the disease was diphtheria—a diagnosis which proved to be correct, for a pseudo-membranous pharyngitis occurred within a day or two.

The anti-hygienic conditions which favor the occurrence and spread of diphtheria are too well known to require more than a passing notice. When diphtheria re-appeared in New York in 1858 after an absence of more than fifty years, some of the first and most severe cases seen by myself occurred in the upper part of the city, along the old water courses, where in consequence of street grading, water was stagnant and impregnated with decaying animal and vegetable matter. Though observing and treating diphtheria, both in its epidemic and sporadic form, during the last fifteen years, I have not observed an instance in which it seemed to be communicated from house to house by the clothing, as we frequently observe in cases of scarlet fever, and sometimes of measles. When it spreads from house to house, or even from room to room, in the same house, I think that it is almost always by the visits of persons having diphtheritic inflammation. The area of contagiousness of diphtheria is therefore limited to the room, in which the patient resides, or to his immediate vicinity.

But it is well known that the sputum of a diphtheritic patient and bits of diphtheritic pseudo-membrane may communicate diphtheria. The experiments indeed show this as do many observations published in the records of diphtheria. Therefore, caution is required that children be not exposed needlessly by the handkerchiefs or towels employed by a patient, nor to his breath, especially during the act of coughing.

Finally, diphtheria, though so often communicated from person to person, not infrequently occurs *de novo* in a locality where the conditions are favorable for its development, and where it prevails as an epidemic or endemic.

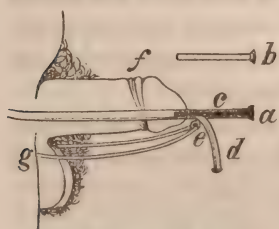
ART. III.—*Notes from Practice.* By GREENSVILLE DOWELL, M. D., Formerly Prof. Anatomy, Soule Univ., Texas; President Faculty and Prof. Surgery Texas Medical College, etc., Galveston, Texas.

I. *A New Form of Male Catheter for Stricture of the Urethra, and a New Method of Retaining it in the Bladder.*

In 1858, I had under treatment a bad case of hypospadias, with two urinary fistulæ—one in the raphe between the testicles, and the other in the perineum posterior to the testicles. Finding it absolutely necessary to keep the catheter in the urethra to prevent closure after incision, I resorted to the measure of tying it in by means of tape in the rings of the catheter, passed around or under the testicles. This I found to be an admirable method, and have used it ever since.

Malgaigne and other surgeons have written pages on the different modes of retaining the catheter in the male—none of which, however, are satisfactory, and all are attended with the danger that the pressure of the instrument may penetrate the fundus of the bladder, or produce sloughing, as, in each instance, the catheter takes its *point d'appui* from an immovable point. Besides, when the instrument is attached to the penis itself, it does not allow of erection without pain and distension; while the flow of the urine softens and loosens the attachments, or produces irritation and pain.

Finding much annoyance from the dripping of urine over the testicles, I at first used a plug or stopper in the mouth of the catheter; but as the bladder filled with urine, causing distension of this viscus, it became painful. I then resorted to a gum elastic tube, placed over the mouth of the catheter, which conducted the urine into a urinal. This seemed to fulfill all the in-



dications; but in a short while there was a large discharge of blood, mucus, epithelial cells and crystals of calculi, when I saw the necessity of a still further improvement, which is shown in figure 1, which represents the outer end of the catheter introduced through the meatus.

(a) Stop cock or screw in the mouth of the catheter; (b) stop screw removed; (d) curved tube passing from under portion of the shaft

FIGURE 1.

of the instrument, (*c*) which is introduced into the penis, (*f*); (*e*) ring in which is tied the tape, (*g*) which passes around the scrotum as near as possible to the attachment to the body.

By partially unscrewing the stop cock (*a*), the urine will flow through the curved tube (*d*) into any vessel that may be used as a urinal. By removing the stop-screw (*a*) entirely, and by screwing in the nozzle of a syringe, the bladder can be completely washed out while the catheter remains in situ.

In all kinds of stricture, I make it an *invariable* rule to keep the catheter thus tied in until the urethra becomes so relaxed as to permit the escape of urine along the sides of the instrument, when it is to be taken out. I deem this of great practical importance in treating all forms of stricture, whether the stricture is to be broken down, as in Holt's method, or incised, as in Pancoast's and others; and it is absolutely necessary to perfect results in all cases of external urethrotomy.

II. Arrow Extractor.

In studying the subject of arrow wounds, I have found in no work on Surgery the description of an efficient arrow extractor. Surgeon J. H. Bill's instruments (*Am. Jour. Med. Sci.*, N. S., vol. xlv, p. 365) were believed to be the best, but they have seemed to me to be very impracticable for general use.

After a few hours study of the subject, I devised an instrument like that represented in figure 2. It is from six to eight inches in length; the handles (*a*) are flat, and cross each other, so as to be of the same width as the space between the claws (*c*) when opened. The inner surface of the claws are hollowed out or grooved longitudinally, and serrated transversely; the outer borders are made sharp and cutting, tapering to points, like the blades of a perforator. The rings (*b*) at the opposite end of the forceps are to be used as those of an ordinary pair of scissors. When the forceps are closed, the claws and the rings touch their opposite fellows. (*e*) Represents the hinge joint.

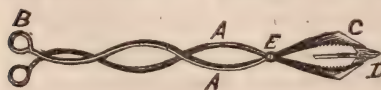


FIGURE 2.

The instrument thus closed is inserted into the arrow wound, and pushed down like bullet forceps until the head of the arrow is felt. Then the blades are opened to the fullest capacity and pushed down over the arrow head (*d*) so as to grasp it, as seen in the figure.

This extractor, though brought out at a late day, would be quite a serviceable instrument to the U. S. Army Surgeon, as the bow and arrow are by no means yet given up by all the warring tribes of Indians; in fact, about one-third of the warring nations of the globe still use them. Every surgeon on our Western prairies should have a pair of these forceps in his case. With them, it is easier to extract an arrow head than a bullet, similarly lodged, with the ordinary bullet forceps.

III. *A New Needle for Ligation of Varicose Veins.*

This is a shuttle, double spear-pointed and straight needle, four inches long, with an eye in each end. It is threaded with silver wire at one end, which is held by the operator in his right hand, while the vein—fully distended by means of a ligature around the limb above the point of trouble—is steadied by the left hand. The unthreaded point of the needle is then passed through the skin into the cellular tissue—the surgeon being careful to keep the instrument as close to the vein as possible; then turn the needle, pass it under the vein and out through the skin at the point where it was entered—thus enclosing nothing but the vein in the ligature. The ends of the wire (the needle being removed) are then twisted until the vein is completely occluded. Ligature after ligature is passed in the same manner, below the one last applied, until all the varicose veins are strangulated. The limb is dressed with a roller bandage. The wires are left *in situ* until they begin to cause suppuration, when they are untwisted and withdrawn.

The first case in which I used this needle in the manner described, was one complicated with a large varicose ulcer; before the ligatures were removed, the ulcer had nearly healed—indeed, looked healthy, having lost all of its livid appearance and indurated character. I now apply this method to the cure of *varicocoele*, while I always ligate in cases of *varicose ulcers* before attempting any other plan of treatment. Thus far, I have had no unfavorable results, and the patients have had but little pain or suppuration.

The Injection of Perchloride of Iron into a *nævus* is reported, by Kesteven (*Lancet*), to have caused sudden death in a case under his charge.—*Archives Dermatology*, Oct., 1874.

Clinical Reports.

A Case of Diphtheria with Remarks. By O. FAIRFAX, M. D.,
Richmond, Va. (Read before the Richmond Academy of
Medicine, Jan. 7th, 1875.)

E. S., a girl of 11 years, called at my office on November 15th, 1874, complaining of sore throat, but of no other indisposition. Upon examination, the pharynx was found to be preternaturally red and somewhat swollen, but nothing more. I prescribed chlorate of potash, to be taken internally and to be used as a gargle. After two days I was called to visit her at her home, and found an increase of the inflammation of the throat, with some febrile excitement, languor and loss of appetite. After five days attendance she was so much relieved that I took leave of the case. On the next day I was recalled, and found that the throat had again become inflamed, and that the tonsils and uvula were, for the first time, sprinkled over with patches of white membrane. From this time the case presented the appearance of a well marked attack of diphtheria—the membrane becoming abundant, and there being considerable constitutional depression. After eight days, the patient seemed quite relieved, and I again discontinued my attendance.

Dec. 3d.—I was again called to see her, and was told that from the 30th of November to the 3d of December she seemed perfectly well, eating with natural appetite, and having, on two successive days, walked several squares in the streets with her mother; but that half an hour before my present visit she had been suddenly seized with a fainting fit. I found her unconscious, but complaining of frontal headache, nausea and dizziness. The skin, except that of the forehead, cool; pupils dilated, though sensitive to light; the pulse very slow, and so irregular that it could not be accurately counted; the kidneys and bowels are reported as very torpid.

In the course of the morning, I succeeded in procuring two or three ounces of urine, which was all that was passed, and found not even a trace of albumen. In the morning I was joined by Dr. Coleman, and, in the course of 12 hours, we gave 18 grains of calomel—2 grains every 2 hours until 12 grains had

been taken, and then 6 grains at a single dose. The calomel was given in pounded ice, and was given alone, because we thought it was the only purgative medicine which the stomach would probably retain.

On the next morning, the 4th inst., the pulse had become regular, but was only 26 to the minute. The calomel, though aided by purgative enemata, not having purged, we ordered a wine glass full every 4 hours of a mixture of two teaspoonfuls of Husband's magnesia in a pint of strong lemonade, and 10 drops of muriated tincture of iron intermediately between the other doses.

By the next day, the 5th, the medicine having acted freely, producing serous stools, and abundant urine, not only free from albumen, but depositing urates, the doses of magnesia were superseded by wine glass full doses of a solution of three drachms of chlorate of potash in a pint of infusion of juniper berries, and a wine glass full of milk, with two teaspoonfuls of schnaaps, was given intermediately.

The kidneys continued to act freely, but by the next day, the 6th inst., the albumen reappeared in the urine to the extent of 25 per cent., and continued in about that degree for many days. For 5 days from the first seizure, which had been called a fainting fit, the general condition of the patient remained pretty much the same—the pulse never rising above 32—the forehead always being so warm as to make her desire the constant application of cloths wetted with iced water, and the nausea and somnolency continuing, but no delirium. At this juncture, in the interval between two of our visits, while the albumen continued about the same in quantity, the pulse rose to 86, and the patient has been otherwise improving ever since.

We looked upon the sudden supervention of head symptoms, namely, the headache, the slow pulse, the nausea, the somnolent condition, the convulsive seizures, &c., as being the result of uræmic poisoning; but if so, why did not a careful examination of the urine an hour or more after the first convulsive seizure reveal even a trace of albumen? and why did all this alarming condition suddenly cease while the quantity of albumen continued unchanged, and did not, indeed, materially diminish until several days more had elapsed? After the second day, the

urine was examined daily, both with heat and nitric acid. The specific gravity never fell below 1015, and was generally as high as 1020. In the first 24 hours of this last attack, there were 3 or 4 recurrences of the seizure which had been reported to me as a fainting fit; but having the good fortune to witness one of them, I found they were epileptiform, being attended with marked clonic contractions of the muscles of the limbs and of the face, and an unconscious state of one or two minutes' duration.

The case might seem to many to be not of sufficient interest to merit being reported, but to my mind there are several points of interest in connection with it. One is that the albumen did not appear in the urine until several hours after the first convulsive attack, the slow pulse, &c., as if the uræmia were the effect and not the cause of the convulsion. It has a parallel in one or more cases reported by Dr. Fordyce Barker in his lately published book on the *Diseases of the Puerperal State*—cases of puerperal convulsions, in which the urine of the expectant women had been carefully examined every day, for many days, but no albumen appeared until after convulsions had set in, and then it became abundant and continuous.

Another point of interest is the demonstration of the impossibility of making an early diagnosis in some cases of diphtheria. In this case, many days passed before the occurrence of the only pathognomonic symptom—the exudation of the membrane.

I think, also, that it is suggestive to us of adopting the same rule in this disease, which painful experience has probably taught us all to observe in scarlet fever, i. e., not to let the patient go out too soon after the disease seems to be quite relieved. I have but little doubt that this girl sustained her dangerous relapse from getting the action of the skin suppressed by her excursions in the outer air, after I had discontinued my attendance.

From time to time there have been observed instances of sudden death occurring in children supposed to be fairly convalescent from diphtheria. One case is especially impressed on my memory:

Ten years since, I was attending, on Broad street, a family in which four or five cases of diphtheria occurred. The first

case was that of a boy of ten years, who, after six or seven days, became so much better that, in calling to see the other children, I had ceased to inquire into his condition, but saw him every day walking about the room, apparently quite well. On calling one morning, I learned, to my surprise, that he was dead, and was told that after rising and dressing himself he had fainted, and had instantly died. Recollecting a not very infrequent sequel of this disease—paralysis of the muscles of deglutition, as well as of the muscles of the limbs—I have been disposed to attribute this case, and some similar ones which have come to my knowledge, to paralysis of the heart. Now, in the case of the girl, not being thoroughly satisfied with uræmia as the cause of the remarkably defective action of the heart, lasting five days, and ceasing while the albumen continued to appear in considerable quantity in the urine, I am inclined to look on the affection of the heart as part of that paralytic condition which is an occasional sequel of diphtheria. She had no difficulty in swallowing after the inflammation of the throat ceased, but a most striking change occurred in her voice, which might be described as a strong nasal twang, showing an impaired action in the muscles of the palate, which continues to the present time, January 1st; and she is just beginning to be able to walk without assistance, showing a degree of paraplegia.

Cases in Practice. By F. K. BAILEY, M. D., Knoxville, Tenn.

CASE I.—*Hepatic Disorder*.—Was called Dec. 12th, 1874, to see Mira B., a full-blooded negro girl: 15; stout and well formed. Found her sitting in a chair, but complaining of severe pain in the gastric and hepatic regions. Bowels constipated; tongue coated over the whole surface with a dirty, white fur, and flabby in appearance.

She was taken Nov. 29th with a cold, the menses having appeared, but stopped after a few hours. Kept about the house, but had a cough, and pain over the whole body. The pulse I found to be 90; skin cool but dry; urine red and scanty. Prescribed—

R. Calomel.....grs. viij.

Pulv. ipecac.....grs. iij.

M. et fit pulv. No. ij. Sig. One every three hours, followed

with castor oil in an hour after the last is taken. Warm drinks and no food. To remain in bed, with heat to the extremities.

13th.—2 P. M. Bowels have moved well, bringing away a large quantity of lumpy fœces, followed with dark, offensive and thin discharges. Tongue still very foul. Breath very offensive, so much so as to be sickening to the attendants. Pulse 136, small and weak; severe pain, with tenderness on pressure over hepatic region, and diffused pain, and soreness all through the abdomen. Prescribed—

R. Acid. sulph. arom.....	3ij.
Cinchonæ sulph.....	grs. xv.
Tr. actææ cimicifugæ.....	— 3ss.
Fluid. ext. taraxaci.....	aa
Aquæ amygdal. amarar	3vj.

M. Sig. Teaspoonful every three hours in water.

To wash the mouth and throat with a saturated solution of chlorate of potash.

14th.—Some better. Tongue cleaning somewhat, and breath not offensive. Pulse 120; pain continues to some degree in abdominal region; some burning on passing urine; but one slight evacuation from the bowels; a little more inclination to eat; desires acids; feet cold at times, when the abdominal pain is aggravated. To continue treatment with pulv. Doveri at night; soup and milk diet.

15th.—Has vomited since yesterday a greenish yellow substance, with some mucus, and small masses like lumps; still pain in the right side of the abdomen, and aggravated on swallowing anything, except the chlorate of potash and some sweet milk. No movement of the bowels since yesterday morning. Tongue moist, but dirty as yet. Pulse 120, and fuller than at any previous visit. Very thirsty, but refrains from drinking on account of the pain it causes in the stomach. There is some yellow tinge to the conjunctivæ, which has also been noticeable from the first. Urine more free for a few hours past; quite copious, and voided without burning. From the symptoms, it is apparent that there has been from the first an engorgement of the liver, as indicated by pain in the hepatic region, and the gastric irritability at present obtaining proceeds from acrid bile, which pours from the duct. The pulse on the 13th going to 136 was indicative of great depression or low excitement.

Directed to suspend the mixture until the operation of castor oil and spts. turpentine, which she is to take at once. Then to resume it, and take Dover's powder and bismuth, every 6 hours; continue the chlorate potash.

16th.—Passed the night more comfortably than any since she was taken sick. Bowels open, and stools copious, greenish yellow. There is no constant pain, but at times she feels a griping across the umbilical region. Occasional vomiting of bilious matter; conjunctivæ more natural in color. Tongue moist and cleaning. Pulse 112, and much softer. To take a teaspoonful saturated solution chlorate potash every 2 or 3 hours, and pulv. Doveri, if the bowels move too much.

17th.—Still has paroxysms of pain, which she says is burning, and frequent evacuations of a thinner discharge, but yellowish green in color. Tongue improving in appearance, and conjunctivæ clearing up. Pulse 104. For the pain prescribe l—

R. Glycerine.....	5ss
Olive oil.....	5j
Chloroform.....	gtt. cxx
Tr. oil peppermint.....	5ij.

M. Sig. Teaspoonful when the pain comes on. To continue the acid mixture in $\frac{1}{2}$ teaspoonful doses.

18th.—Much better. The chloroform mixture relieved the paroxysms of pain at once. Bowels still moving off, with bilious stools. No vomiting, except on first waking in the morning. Patient says there is a creeping sensation in the right side when the pain comes on, which is represented by the term formication. Pulse 92 and soft. Tongue moist, but having still some brown fur upon the entire surface. Can retain the acid mixture, which she is to continue, as also the chloroform as required. To take animal soup as the stomach will tolerate it.

19th.—Found patient improving rapidly; no pain in the hepatic region, but complains of some uneasiness under the false ribs on the left side, and also in the lower abdomen. Pulse 90. Tongue improving in appearance. Bowels open, and the stools more consistent. Stomach still somewhat irritable, but retains food in small amounts. To continue the chloroform mixture, which has uniformly afforded relief to the local pain, and the acid preparation, as it can be tolerated.

20th.—Informed that Mira is improving rapidly.

This case appears to have been one of hepatic engorgement, with acrid bile, which caused much pain and irritation in the duct. The symptoms did not indicate the presence of calculi, but rather inspissated bile. If the patient had been a white person, an icteroid tinge might have been noticed upon the cutaneous surface; but black, as she was, the conjunctivæ only showed a yellow hue. The vomited matter at times being in small masses, it is more than probable that they might have found their way into the stomach, and were rejected. The frequent pulse (136) indicated a considerable degree of constitutional disturbance, and the daily diminution showed a gradual removal of the cause. The secretions were exceedingly acrid, which were voided from the rectum, as well as rejected by vomiting.

The ready relief from pain after taking the chloroform mixture, shows that it was a spasmodic condition of the ducts. The formication is a common attendant upon such cases, and is felt subsequent to the relief of severe spasm, and may be analogous to a tingling or itching upon the external surfaces. Olive oil has long been used in calculous affections of the liver, and its combination in this case with chloroform proved very effectual. I have met with cases like the one in question which have proved fatal, by reason of the closure of the hepatic ducts, which was not relieved. The frequent pulse, and subsequent depression, with distressing nausea and pain, rendered the case one of gravity for a few days, and is considered as worthy of being placed on record.

CASE II.—*Nephralgia—Calculosa(?)*—Dec. 22d, 1874, 4 P.M. A gentleman from New York, in town on a business visit. About 65, well formed, of good habits of body and mind; bilious nervous temperament. While in conversation with a friend at his place of business, he was taken with severe pain in the right side over the kidney. Came at once to my office, and I advised him to proceed immediately to his room, one block distant. Following him at once, I found the pain increasing rapidly. Gave him castor oil $\frac{3}{4}$ ss, in brandy, with chloroform added; applied a belladonna plaster to the painful spot as soon as it could be procured. Caused him to inhale chloroform freely for a few seconds. The pain would subside for a minute after inhaling the anæsthetic, but return with redoubled violence.

Within twenty minutes after taking his bed, vomiting occurred. He threw up nearly a quart of sour smelling liquid, and the pain ceased as suddenly as it commenced. For a few minutes before vomiting commenced, he was writhing in agony, and could scarcely be kept in the bed.

After the subsidence of the pain, his pulse, which had been very full and strong, became irregular and small; almost intermittent. He took no more medicine, and before 7 o'clock he was entirely free from pain, but felt some soreness in the lumbar region.

At 9 o'clock, there was some pain, but it soon subsided. An occasional griping across the region of the transverse colon indicated effects of castor oil.

23d, 9 A. M.—Patient sitting up; had a good night's sleep; ate a light breakfast. Bowels moved freely three times during the night, and the urine flowed very freely at various periods. To remain quiet in his room through the day.

24th.—At 10 o'clock last night I was called in, as he feared a return of pain, and also complained of an intense feeling like dysuria. Thinking there might be an accumulation of urine, I passed a catheter. A small quantity of urine was drawn off, and the sensation at once subsided. After this, he slept well all the night.

I will state in connection with this case that on the evening previous to the attack, this gentleman told me that he felt an uneasiness in the bladder, which appeared to extend as far as the prostate gland; that he had been told by a physician during the year that a slight enlargement of the gland had existed, perhaps, for some time. At that time, I prescribed a mixture containing about eight grains of brom. potassii to the fluid drachm; but he took only one dose, and that was just before dinner the next day, which was only three hours before the renal pain came on.

He informs me that he had a similar attack of pain in the same side in 1870, while at his home, with nothing of the kind in the intervening period.

Inasmuch as I had no opportunity of examining the chamber utensil after urinating the first time subsequent to being relieved of the pain, any calculus which probably was the offend-

ing agent, became lost. The symptoms indicated such a fact, and the case may be considered one of renal calculus.

28th.—Up to this date not the least indication of renal disturbance has occurred.

During a practice of nearly 40 years, I have met but few cases of this kind. The first was a young lady about 20, good previous health. The pain in her case was relieved by an emetic of ipecac. The calculus passed in due time, and was as large as a pea, but very rough and uneven. Between the years 1855 and 1860, I attended a gentleman of nearly 70 at three different times who suffered from nephralgia. On one occasion, the disease was functional or purely neuralgic, the paroxysms recurring periodically, and was cured by large doses of sulph. quinia. On the other two occasions there were probably calculous concretions, though none were discovered. I am well satisfied that the prompt exhibition of a large dose of castor oil, and the inhalation of chloroform, will produce relief in such cases.

Of the preventive treatment of both hepatic and renal calculous disorders, I have not time now to treat. This is an important matter, and distinct from the management of a case during a paroxysm.

CASE III.—Dec. 29th, 4 P. M. While writing the above, I was called to visit a lady of about 60, mother of several children. Found her laboring under severe pain in the hepatic region, lancinating and aggravated by every form of respiration. Pulse 80, and soft. No fever. Tongue clean. Bowels open in the morning. Sat, on the evening previous, at the supper table with an open window directly behind her. The pain did not become severe till after noon, but some uneasiness was noticed in the morning. The patient being very large, and weighing 180 or more, and having had some heart troubles, with an extremely irritable stomach, I forbore the use of any depressing agent, but gave small doses sulph. morphia, with sub. nit. bismuth, every half hour, and applied immediately over the course of the hepatic ducts a belladonna plaster. In 30 minutes the pain was much diminished, and before bed-time she could sleep.

30th.—9 A. M. Slept well, and only feels some soreness through the hepatic region. There was a recurrence of palpita-

tion at times, but no more than is usual when disturbed from any functional derangement.

I will state that during the month just passed, there has been a prevalence of catarrhal fever, resulting, as is probable, from the unusual changeable weather.

As catarrh affects mucous membranes, could not the three cases above noted have been of such a nature?

Correspondence.

Preparation of Sponge-Tents.

Mr. Editor:—Having for the past two years met with *decided success* in the use of sponge-tents, it may be of interest to know how I prepare them. The formula I adopt is, first, to make a saturated infusion of *hydrastis canadensis*, to which is to be added enough of gum acacia to make the infusion of the proper consistence; then, for every one dozen tents to be prepared, I add—

℞. Acid carbolic..... gr. xxiv
 Ol. caryophylli.....gtt. xij

Misce bene, and add to the infusion. Then proceed as usual in the manufacturing of tents—insert the wire, wind, trim when dry, and coat with gelatin.

The propriety of using the above will be apparent at once. Tents thus made are the best I have ever used.

Yours, &c.,

PAUL BOYCE, M. D.

Borden, California, January 8th, 1875.

Analyses, Selections, &c.

Quinia and Dry-Cupping as Parturients.—Dr. B. H. Washington, Augusta, Ga., says (*Nash. Jour. Med. & Surg.*, January, 1875): Any one acquainted with the medical practice in vogue some thirty years ago, knows very well that quinine was freely

administered to pregnant women—sometimes immediately previous to delivery to prevent a chill—and no one ever saw labor pains brought on. On the other hand, observers perfectly reliable affirm that they have seen labor pains increased by its use.

Dry-cupping to the spinal column will cause relaxation of the os, and contraction of the fundus uteri, all at the same time; furthermore, in cases of habitual miscarriage, no remedy will more effectually prevent it; and yet, when the time for labor comes, it will make more efficient the very pains it had been holding back for four or five months. In fact, in tedious labors it is one of the most efficient agents we have.

I took charge of a case once, in her seventh pregnancy, about to miscarry, at the very same time she had done for six preceding pregnancies. The pains were very severe, regular and efficient. I gave a heavy opiate, and applied a small blister to the spine, which, while she was sleeping, was at work, breaking up the morbid condition of the nervous system. About the fourth day after, regular dry cupping the whole length of the spinal column was tried every alternate night during the remainder of her pregnancy, and she went to her full time, and was safely and easily delivered. Not many months since, Prof. E. D. Fenner reported a case in labor thirty hours, when he concluded to try my plan, and she was safely delivered in thirty minutes.

As this affirmation, that dry-cupping will produce expansion of the os uteri and contraction of the fundus, seems to be a puzzle to many, and very unreasonable, allow me to state how I was convinced: I dry-cupped a lady on the second night after her confinement, to relieve the disagreeable results usually following, and she remarked that it made her uterus contract.

Some time after, I had myself dry-cupped; and while the cup was high up on the neck, I attempted to drive away some insect that was stinging me on the cheek, and found my arm hung very heavily. The thought immediately occurred to me that dry-cupping was the very thing to take off muscular resistance in dislocation of the humerus. Some months afterward, a boy was thrown from a horse, and had a dislocation of the shoulder-joint. Dry-cupping took off the muscular resistance so effectually that the boy scarcely made a wry face when the bone was replaced.

Here is a woman in whom dry-cupping made her uterus *contract*, and in the case of the boy it had produced *relaxation*—both facts which could not be disputed. Why, then, I asked myself, will not dry-cupping produce contraction of the fundus uteri and expansion of the os, inasmuch as the proper function of the first is to contract, and of the second to expand? Upon the first trial, in a case of tedious labor, the woman was safely

delivered in less than thirty minutes, and in various other cases, in less than fifteen minutes.

Now, we may safely say that, up to the right time, quinine may be administered without any calculations of its causing uterine contractions; and yet, at the right time, it may be considered an efficient adjuvant in natural labor, or even efficient in those cases where the threatened miscarriage has proceeded to such a stage as to be utterly beyond the reach of art to check. In one case I had, quinine was given in four or five-grain doses every three hours every day, for ten or fifteen days, to crush down a remittent fever, antecedent to her delivery, and this was accomplished; the woman went on to her calculated time, and was delivered without any remittent complications, and without any disturbance from the quinine.

Portable Galvano-Faradic Battery.—Prof. Geo. W. Rains, M. D., of the Medical Department of the University of Georgia, describes at some length (*Arch. Electrol. & Neurol.*, Nov. 1874) a portable galvano-faradic electrical battery which he has devised. The complete instrument is contained in a box about ten inches long, seven and a half inches broad, and seven inches high. The galvanic portion has 40 separate hard-rubber cells, each being $\frac{1}{16}$ ths inch square, and $2\frac{1}{2}$ inches deep. Zinc and platinum are the metals used. The power of the battery is equal to about 20 Grove's cells in ordinary action, or to the 32-cell battery of the Galvano-Faradic Co., N. Y., *when the currents are passed through great resistance*, as through tumors, &c.

The faradic portion can be easily lifted out of the battery box, and used separately; it is of full power, and constructed essentially the same as those usually supplied—although it has but the primary coil. If the secondary current is desired, however, it can be easily obtained by simply substituting a second coil in place of the copper tube.

When in position, the faradic portion forms an important auxiliary to the galvanic battery, having four separate uses: (1) To give the usual faradic current; (2) to act as a current-breaker to the constant galvanic current of the battery; (3) to give the constant galvanic current, when required, through its connection with the battery; and (4) the addition of its own graduated current to the interrupted battery current whenever it may be desired. It is believed that the passage of a galvanic interrupted current through the same pair of electrodes through which a faradic current is at the same time passing has never before been effected.

Cold-Powders.—Dr. Geo. M. Beard (*Arch. Electrol. & Neurol.*, Nov., 1874) recommends the following, which, when taken at the outset, is of great value in breaking up “colds,” and of modifying their force when taken late :

R. Camphor, five parts. Dissolve in ether to the consistence of cream. Then add carbonate of ammonia, four parts; opium powder, one part. Mix and keep in a tightly-corked bottle.

The dose is of course regulated by the opium, and ranges between three and ten or fifteen grains. We have been accustomed to prescribe as much as one can put on the finger nail, which may be taken in a little water just before retiring, by preference, or at any hour of the day, whenever there is a *suspicion of having caught cold*. If need be, a moderate dose may be taken several days in succession.

The advantages of this powder are (1) the taste is not disagreeable; even the bitterness of the opium is mostly neutralized by the camphor and ammonia. (2) It is singularly and inexplicably efficacious. He believes it to be more efficient than Dover's powder, and incomparably more agreeable. In some cases, it produces a gentle perspiration; in others, this special effect is not observed. It is well to take it whenever we become badly chilled.

Diagnosis of Pregnancy.—Dr. Rasch calls attention (*British Medical Journal*, August 30, 1873) to a new method of detecting pregnancy, especially during the first three months. By making a vaginal examination with the fingers, it is easy to detect fluctuation in the pregnant uterus. He has himself made out a diagnosis of pregnancy as early as the seventh week, and experiences no difficulty whatever in making it out after the second month. The uterus must be steadied by a hand grasping it through the abdominal walls, while two fingers introduced into the vagina manipulate the uterus. As a rule, the uterus will be found to be anteverted—a position which renders bimanual manipulation all the easier. The fluctuation is best detected at the fundus. Dr. Rasch thinks, also, that sufficient attention has not been paid to the increased desire to pass urine, especially at night, which is not infrequently one of the earliest symptoms of pregnancy.—*Boston Med. & Surg. Journal*, Aug. 20, 1874.

A Case of Aneurism of the Femoral Artery Treated by Digital Compression of the artery just where it crosses the brim of the pelvis is reported in *Atlanta Med. & Surg. Jour.*, December, 1874, by Dr. James McCann, of Pittsburg, Pa. Cure resulted in eleven hours and fifty five minutes.

Deaths Due to Sponge-Tents.—At a recent meeting of the Philadelphia Obstetrical Society, Dr. DeF. Willard exhibited the uterus of a stoutly-built woman, married eight years, but childless, who had died after the use of sponge tents. Offspring being earnestly desired, he introduced a tent to dilate the narrow cervix. The canal was slightly dilated, but as it closed up again he introduced a larger tent, which dilated the canal to the size of the little finger, but it caused neuralgia. On a Friday he removed this tent and introduced a smaller one. Contrary to injunction, the patient used her sewing machine the next day. On Sunday morning peritonitis set in. The tent had slipped out of the canal and was found in the vagina. Death on ninth day.

Post Mortem. A small amount of serous exudation in the abdominal cavity; parietal peritoneal layer covered with lymph; abscess containing about 3iiss pus on the left side of the uterus. There had been extensive inflammation of the pelvic viscera, probably at first peri-uterine cellulitis, and then general peritonitis.

Dr. E. Wilson reported an analogous case. He introduced a sponge tent on a Thursday; on Saturday another, which remained until Sunday, when the lady seemed so well that he let her go down stairs. She, however, went to church in the evening. That night, a chill; Monday, peritonitis; Tuesday, death.

Dr. H. Lenox Hodge had had a fatal case, which differed from those reported in that the patient was kept perfectly quiet after the use of the tents. The first was introduced on a Saturday; the second Sunday; the third on Monday. She complained of acute abdominal pain before the last was removed, and died of peritonitis in four days.

Autopsy. Double ovarian tumor; right Fallopian tube firmly adherent to the uterus. He thought the use of tents more dangerous than the profession believed.

Dr. McCall said that a perfectly healthy condition does not reduce the risk. He detailed a case in which peritonitis followed the repeated use of tents, though the patient recovered.

Dr. A. H. Smith reported a fatal case, in which he had once successfully dilated the uterus and removed a morbid growth with an écraseur. Eighteen months afterward, the tumor commencing to bleed again, he dilated the cervix and scraped away the soft mass, probably a fibroid degenerating into a medullary sarcoma. Peritonitis occurred, and the patient died in three days. He thinks the great danger is from the repeated use of tents; never from the first introduction, seldom from the second, but he fears the third. The uterus is then in such an irritable

condition that septic matter is readily absorbed. He never hesitated to use tents, even in his office. He always required his patients to use an antiseptic wash. For sterility or dysmenorrhœa, he often put in a sponge tent during the day before menstruation, and kept it in throughout the flow.

Dr. Goodell reported one case of death *following* the use of three sponge tents; but whether the fatal peritonitis was due to the tents, or to the manipulations by the five physicians present, he could not say. He thinks that the history of fatal cases will prove that it is not the first tent, but those introduced at the second or third visits that do the mischief. The first irritates and congests the cervix; its removal abrades the mucous coat, and from this raw surface are absorbed the fetid discharges or septic material generated by tents subsequently used. Influenced by this opinion, he now first stretches open the canal by the uterine dilator, introduces the largest possible sponge tent, and then insinuates around it several laminaria tents so as to accomplish the necessary amount of dilatation at once. He always directs the patients using tents to use detergent vaginal washes.

Dr. J. Cheston Morris said his experience coincided with the views of Dr. Goodell. The first sponge tent was not dangerous; so in a great measure was the second; but in his practice it was the third introduction that had been followed by serious results.—*Amer. Jour. Obstet.*

The Ophthalmoscope as a Diagnostic Means in Injuries of the Brain.—In a note to *La France Medicale*, Prof. Bouchut says that in simple concussion of the brain, the ophthalmoscope fails to indicate the existence of any lesion of either the optic papilla or the retina and retinal vessels. The condition of the fundus is nearly normal.

In contusion, however, followed by encephalitis, and in compression of the brain, the appearance of the fundus affords a measure of the effect produced within the cranium. The papilla of the optic nerve is red, swollen, of a flattened appearance, and more or less obscure and diffuse on account of the hyperæmia of the nerve. It is sometimes the seat of an œdema which extends throughout the neighboring portion of the retina, and gives rise to an acute neuro-retinitis.

In addition, the retinal veins are enlarged, flexuous, and sometimes filled with thromboses, thus indicating the difficulty with which the blood re-enters the cranium from the fundus; or an effusion obstructs the progress of the blood in the sinuses of the dura mater.—*Med. Examiner*, Jan. 15, 1875.

Bilateral Symmetry as to Length—writes Dr. Wm. Hunt, (*Phil. Med. Times*, Jan. 15)—is exceptional. Dr. Cox, formerly resident of the Pennsylvania Hospital, noticed discrepancies and measured both sides of a large number of persons who had never received any injury whatever to their lower extremities, taking his points of departure from the sterno-clavicular junction, umbilicus, and anterior superior spine. The differences between the two sides ranged from seven-eighths of an inch to nothing, and the latter result was exceptional. If this statement holds good, how many heretofore puzzling things are explained, and what a nut to crack for those who dogmatically assert that a man with fractured thigh *must* be cured without shortening! We must combat the shortening from overlapping, but we need not put the patient to torture in striving to force one side to be exactly like the other. I have never known the really forcible practice of treating fractures to do well. The muscles or the patient himself will be sure to rebel, and the results will not be as good as were hoped for. These facts explain what I have not unfrequently experienced. I have been much annoyed, for instance, by a thigh-case showing too much shortening while the patient was in bed. All would seem to be right at the point of fracture; but, when compared with the opposite side measuring was unsatisfactory. On getting up, however, the patient would show but very little difference, and after a little practice he would walk with scarcely a limp, or with none at all. These observations also explain, to a great extent, the varying gaits of different people who have never met with injury.

Wherein do these differences in the two sides lie as to the lower extremities? Hyrtl says the right arm is longer than the left by from two to three lines, but that the lower extremities are equal in length. I have made a few measurements on the skeleton, and can confirm this statement, and, therefore, think that the variation is mostly an acquired one, and that it is dependent upon the carriage of the trunk, through occupation or habit, altering the direction of the spinal column. At all events, we know that quiet, well-formed, and healthy children, when they are the subjects of fractured thigh, do not present the same difficulties as to measurement.

Extensive Brain Injury with a Remarkable Result.—Mr. A. J. Dotson was found by Dr. Nelson, early in the morning of December 31st, 1874, upon the floor of the store in which he was clerk at Greenbrier Bridge, W. Va., in a dying condition, surrounded by a pool of blood, with a severe gash in his forehead, skull mashed in in several places, one eye and cheek bone

crushed out of all semblance of anything human, and one ear cut entirely in two—the skull being also broken at that point. The wounds were inflicted by a negro with a two pound weight. Of course he was perfectly unconscious, and had not spoken a word since discovered by Dr. Nelson, and continued in this condition, gradually sinking, until 7 o'clock at night.

At this hour—twelve or fourteen hours after the injury—a special officer of the county, Mr. Liggett called at the house, was invited in, approached the bedside of the dying man, and, kneeling at his side, asked him if he would not tell him who hurt him? Greatly to the surprise of those present, Mr. Dotson made the following speech: “Ned Rives did it. He came to the store after midnight last night, bought a bill of goods of me amounting to \$26.65, took them up, and started away without paying me. I asked him to stop, which he did, but failing to agree upon any terms of settlement, I asked him to wait in the store until morning, when we could adjust it. This he consented to do, but knowing him to be a desperate character, I put a pistol in my pocket, sat down, and must have fallen asleep, for the next thing I knew was when I realized that I was lying upon the floor, shot, and Rives beating me over the head with a two pound weight. I managed to draw my pistol and fire, and remember no more.”

After saying this, he never spoke again, but died during the night.—*Richmond Dispatch*.

[Though the above occurs as a special telegram to the leading secular paper of our community, reliable information advises us that the account is essentially correct.—ED.]

Glycerine-Sichel.—The *Gazette Obstet. et Gaz. de Joulin*, according to *La Tribune Medicale*, states that this preparation, which consists of pure glycerine and the yolk of egg, and has the appearance and consistence of honey, is highly praised as a local application for several purposes. In fissures of the nipple of nursing women it affords relief when other remedies fail. It afforded relief in every one of eleven such cases in which it was applied. In fissures of the mammæ, it protects the skin from the action of the saliva of the child, and from sour milk. In ruptures of the perineum, it protects the torn surfaces from being irritated by the urine and lochia. It is daily used in Dr. Vernier's clinics to anoint the hands when examining suspicious women, and is found to be a perfect protection from infection.

This preparation does not putrefy, nor does it become rancid like ointments. It assists in cleansing wounds, and promotes primary union.—*Am. Jour. Med. Sci.*, Jan., 1875.

Aneurism Successfully Treated by Potassium Iodide.—Dr. Thos. M. Mathews, of Mount Enterprise, Texas, believes that in the potassic salt we have a remedy which will, in a very great measure, control, if not cure, aneurism.

He reports the case (*Am. Jour. Med. Sci.*, Jan., 1875) of a lady, æt. 38, married 12 or 15 years, but childless. He failed to detect the cause of her general ill health until last April, when he discovered an aneurism of the abdominal aorta, extending from under the sternum obliquely downward to below the umbilicus. The lady was confined closely to bed, and required chloral to induce sleep.

Encouraged by Dr. George W. Balfour's recommendation, which he had seen in a recent number of the *Journal*, he at once put the lady upon $12\frac{1}{2}$ grains of potassium iodide, dissolved in syrup of sarsaparilla, three times a day. The dose was increased each day until it reached 15 grains, which quantity he then gave four times in the twenty-four hours. *The patient began at once to improve.* The large doses seemed at first to irritate the stomach a little, but this soon passed away. Five months have elapsed; she is able to be up nearly all the while; sleeps without the soporific; rides about, even on horseback, a good deal, and is apparently in very good health. The aneurismal thrill and bruit are nearly gone, though the remains of the sac can be distinctly felt, yet very much smaller than it was at first. The iodide is still kept up (gr. v.) with carbonate of ammonia (gr. iij), three times a day. Except during June, when fluid extract of ergot, $\mathfrak{z}\text{i}$, with tinct. digitalis, gtt. v, were given between the doses of the iodide, nothing else than the potassium iodide has been used.

Substitute for Binder.—Dr. E. T. Williams, Roxbury, Mass., in a letter to the *Boston Med. & Surg. Jour.*, June 11, 1874, suggests that, instead of the obstetric binder to produce pressure on the uterus during labor, a sheet be twisted loosely in the form of a rope, and tied together at the ends. Let the patient put her feet into the loop at the lower end and push; grasp the other end with her hands and pull—the power thus exerted is indefinite; it is the gymnastic paradox of trying to lift oneself, and may be practiced, if desired, until the sheet or back gives way. Its effect in labor is surprising, and is immensely appreciated by patients. It brings the body muscles into play; it relieves that distressing sense of helplessness, which all women feel, by enabling them to help themselves; it shortens labor; and it saves the use of instruments.

Mortality by Railway Accidents.—In his address before the Mechanical Section of the British Association, Professor James Thompson discusses the question of improvements in railway engineering. By reference to the reports for the last twenty-seven years, he shows that in the early part of that period about one passenger in five million was killed. Through the period, the number steadily diminished, till, in 1873, it was one in eleven million. Among the employés of the roads, however, a very different state of affairs exists, for in the same year, 1873, one out of every 323 employés of the railroads in Great Britain lost his life. The great majority of these accidents occurred at stations and along the lines in the operations of coupling and shunting, or switching the cars from one track to another.—*Scribner's Monthly*, Feb., 1875.

Oil of Eucalyptus as a Vermifuge.—At the meeting of the Pharmaceutical Society of Paris, November 4th, 1874, M. Vidau read a note stating that a Zouave had been troubled for a long time with *Oxyuris vermicularis*, for which calomel, kousso, Corsican moss and other remedies had been tried in vain. He was cured in nine days by using in the evening a quart of an injection containing from fifty to sixty drops of the oil of eucalyptus. *Amer. Jour. Phar.*, Jan., 1875.

Proceedings of Societies.

RICHMOND ACADEMY OF MEDICINE.

December 17th. Election of Officers for 1875:—Drs. J. Grattan Cabell, *President*; O. A. Crenshaw, R. T. Coleman, I. H. White, *Vice Presidents*; H. H. Levy, *Secretary*; J. C. Deaton, *Asst. Secty.*; C. Tompkins, *Treasurer*.

The Committee on Public Health reported that the city had been remarkably healthy during November—the mortality being $33\frac{1}{3}$ per cent. less than during the corresponding month, 1873.

A Case of Penetrating Gunshot Wound of the Chest was reported by the Committee, in which, three days after injury, a large collection of bloody serum was found compressing the left lung and displacing the heart. A pint and a half of this fluid was drawn off with the aspirator with immediate relief of symptoms. For three consecutive days, aspira-

tion was repeated with much benefit—nearly a gallon of fluid being thus removed. The patient's condition is very much improved, though he is not yet out of danger.

Pathological Specimen.—Dr. F. D. Cunningham exhibited a spheroidal tumor, about the size of an adult head, weighing four pounds and six drachms, having the external appearance of bone, though in reality wanting, as shown by more careful examination, the Haversian canals and nutrient vessels, besides being soluble in weak acid, which had been removed this week from the abdomen of a female negro subject, about 55 years old, in the dissecting-room of the Medical College of Virginia, and who had died suddenly at the City Alms-House. The tumor was found a little to the right of the median line, encased in a fibrous capsule, attached by adhesions to the bladder and small intestines, and seemed to have been developed in the mesentery. In fact, however, it was a sub-serous fibroid of the fundus of the uterus which had undergone calcification. Its internal striated appearance sustained this view, as did also the discovery of the two other, though smaller tumors, growing upon the uterus which were undergoing calcification. The change of structure is similar to that which occurs in blood-vessels that become "ossified," as the process is improperly called. The arteries of the extremities had also undergone ossification, and senile gangrene had developed in the right foot and leg.

Stoves and Furnaces was the subject of a paper read by Dr. L. S. Joynes. After alluding to the economical advantages of heating dwellings by Latrobe stoves, &c., he stated that this mode of heating was opposed to comfort and the laws of nature. Such stoves or furnaces stop up the fire-places, and the air of the over-heated room, which must be breathed, becomes stagnant. Heated air is rarefied, proper moisture is diminished, and oxygen is less in amount than it should be. Hence respirations are quickened, while the exhalation of carbonic acid is impeded. Consequently headache and flushed face, especially in those not accustomed to furnaces. The evaporating pans attached to some heaters are troublesome, or not attended to.

But the great objection to furnace-heating is that no draft of fresh air is created and enforced by the apparatus itself through the apartment. Unless windows or doors be opened to admit a cold draft, the air becomes hot, stagnant, and overcharged with carbonic acid—an objection especially applicable to sleeping apartments. During the day, we do not remain in the unrenewed furnace-heated air for six or eight successive hours, and therefore do not, to so great an extent, experience the disadvantages felt at night. An objection to stoves is that carbonic oxide is emitted when they become overheated.

Nature's mode of heating is not by raising the temperature of the whole air, but the Sun warms by radiation, leaving the air rich in oxygen. The old fashioned fireplaces are therefore preferable to stoves, since they radiate heat without heating the whole mass of air in the room. Besides whatever of heated air there is passes up the chimney, thus necessitating a constant influx of purer air from outside the apartment under the doors, through the crevices, &c.

Furnace heated schools, churches, &c., are bearable if thorough ventilation be secured; but even here a preferable mode of heating is by hot water or steam pipes, thus preventing the air from having that burnt quality which furnaces occasion. Ventilation may be improved in halls thus heated by lighting a gas burner in an open chimney flue, which would create a sufficient current or draft.

Dr. F. B. Watkins thought that Dr. J. had failed to establish his principal proposition. If the furnace sends a *constant* blast of hot air into a room, some of the air must escape, and thus enforce ventilation. In rarefied air, the amount of nitrogen is diminished *pari passu* with the oxygen. When placed in heated air, he does not think an increased rapidity of respirations necessary, for there is no need of creating a greater amount of internal heat. But whatever be the objection to stoves, the greater objection to fireplaces was that they were the occasion of so much ash-dust, actually containing caustic potash, that was set afloat in the apartment. Besides, open fireplaces heat the front portion of the body while the back is chilled by the cold air of the room, thus favoring congestion. He frequently advises the introduction of the Latrobe or other like stove. As dwellings in the South are constructed, there is no occasion for fearing insufficient ventilation.

Dr. F. D. Cunningham agreed with Dr. Joynes. He thought the Latrobe stove was the frequent occasion of catarrh. The hot, dry air absorbs the moisture from the mucous surfaces, necessitating a greater flow of blood to these parts—hence chronic (passive) congestion. The individual in this condition goes out into the cold air, which acts as another irritant, and thus catarrh results. He thought practitioners must have observed an increased number of catarrh patients since the use of "heaters" has become common. In the old "fireplace days," catarrh was rare, in fact scarcely known in the South.

Dr. J. S. Wellford said that with a properly arranged Latrobe stove, the air (being drawn from out doors) is pure, and the evaporating pans (without which no stove should be constructed) afford enough moisture. Besides the comfort and convenience

of an equable temperature thus obtained all over the house, he was satisfied that, instead of being the frequent occasion of catarrh, a properly arranged Latrobe-stove heated apartment was the best place to be found for treating rheumatism, catarrh, &c., in support of which he referred to cases that had come under his own observation.

Dr. Charles Macgill agreed fully with Drs. Watkins and Wellford. He had seen a great deal more of catarrh, rheumatism, and neuralgia in those accustomed to the open fireplaces than in those who use "heaters" properly arranged. He mentioned instances in support of his views.

Dr. R. T. Coleman said that this mode of heating suited the climates where there were not marked variations of winter temperature. The trouble he had experienced here was regulating the heat to suit the varying out-door temperature.

Dr. James B. McCaw thought that the idea of seeking an equable temperature was wrong. We live out of doors in a very varying temperature. The surface of the body should be accustomed to temperature changes; the pores of the skin should be allowed the exercise of contracting and dilating to suit the condition of the out-door air. Whoever goes out on the street gets into a draft. Children should be trained to have healthy acting skins, and thus not be allowed to be in danger of "taking cold" on even the slightest exposure.

January 7th, 1875. Dr. C. Tompkins read a letter from Dr. Paul F. Eve, Nashville, Tenn., asking for succinct accounts of prominent practitioners in Virginia, to be incorporated in the biographical sketches of medical men of the South to appear in an encyclopædia now being published in New York.

Dr. W. W. Parker lately attended a lady in her second labor before full term. Post partum hemorrhage occurred, but was checked with difficulty. The hand introduced into the uterus felt a pouch on each side of the fundus, which probably resulted from irregular contraction of the fibres of the uterus.

Dr. O. Fairfax read a report of a case of *Diphtheria*. (See page 660.)

January 21st. **Transverse Fracture of the Proximal Phalanx of the Great Toe.**—Dr. M. L. James reported a case of this in a healthy woman, which seemed attributable to muscular strain. The diagnosis was easily and distinctly made out by the (not dislocation) displacement, crepitation, &c. The joints were not involved. Reduction was easily effected, and maintained by properly adjusted splints.

Book Notices, &c.

Transactions of the Texas Medical Association, 6th Annual Session. Held at Dallas, April 7th-10th, 1874. DR. A. J. CLOPTON, Jefferson, *President*; DR. W. A. EAST, Austin, *Secy.* To which is prefixed *Proceedings in Houston*, 1872 (DR. R. T. FLEWELLEN, *President*); and in Waco, 1873 (DR. D. F. STUART, *President*). Pamphlet. pp. 210.

The first paper in this volume is the interesting address of the President elected at the third session, Dr. D. H. Wallace, of Waco, being a review of the origin and development of the medical sciences and profession. The concluding portion urges State legislation in behalf of the just claims of the profession of Texas.

The second paper in the volume, and the first in connection with the proceedings of the fifth session, is the *Report on Hæmaturia Miasmatica*, also by Dr. Wallace. Regarding the etiology of this disease, he remarks that "all are agreed that it is malarial." The usual occurrence of hæmaturia is "only a symptom," the "true pathology being the effect of the miasm upon the nervous centres, secondarily affecting the different organs and their secretions, and producing a blood dyscrasia."

As to treatment, Dr. W. thinks mercury given to restore the secretions very necessary, while opiates to quiet restlessness and relieve pain are almost indispensable. He condemns the use of quinine, *unless there be marked periodicity*, and then it should be given only with a sedative, as he thinks it otherwise aggravates the nervous symptoms. We are surprised that our author who must, from the very necessities of the case, be so familiar with the other actions of quinine, should deny its sedative action, an effect which it undoubtedly has in large doses, as long ago pointed out by Manson and others. But, not to discuss this fact, a bad commentary upon the so-called "anti-quinial treatment" (though in accordance with the reports of others who ignore the essential value of quinia) is the statement that in the author's county (McLennan), "the per cent. of mortality is believed to be from 25 to 35 of the whole number attacked;" whereas the mortality in the practice of the advocates of the quinia plan of treatment, such as Norcom, Bougarel, and others, has been almost *nothing*. But a singular inconsistency in argument against the specific value of quinia occurs in the following statement, for making which, however, Dr. W. deserves credit for a candor that indicates an earnest desire to withhold no fact that would probably retard true progress: "It is but

stating the truth," he says, "to admit that in those cases in which quinia aggravates the symptoms, nothing seems to do much good; it is just those cases which show least indication of periodicity, those cases that generally prove fatal under any treatment." An unfortunate omission as a part of the discussion is that the quantity of quinia used in testing its value is not mentioned. Notwithstanding what has been said, this paper is, in other respects, a most valuable contribution, and should not be lost sight of by him who undertakes to write up the history of this disease.

Dr. B. Powell, Houston, contributes reports of fourteen cases of *Cerebro-Spinal Meningitis, treated with Bromide of Potassium and Ergot*—four by himself, one fatal, due he thinks to want of early recognition of the disease; three by Dr. L. Hudspeth, Houston, all recovered; and seven by Dr. J. J. Burroughs, Houston, one fatal after the second visit, which result the Doctor seems to think could have been averted had he been sent for at the very commencement of the attack. This treatment was commenced by Dr. P. in the belief that the disease is essentially an inflammation of the meninges of the brain and spinal cord, and that "bromide of potassium constricts the vessels of the cerebral mass," while "ergot constricts the vessels of the spinal cord." We think the recommendations, now generally adopted, are based on firm principles, while the results in the cases referred to, in connection with cases elsewhere reported, justify their still more general adoption.

Dr. J. T. Norris, of Burton, reports a *Case of Hydrophobia* in a gentleman, aged 50 years, occurring about four months after being bitten by a mad dog,

Dr. A. R. Kilpatrick, of Navasota, reports eight cases of *Puerperal Eclampsia*; in five free venesection was adopted with immediate good results. In the sixth case, "trial was made to draw blood, but very little was procured," and the patient died. Two other cases are reported. In a Mrs. Woods' case venesection was not tried and she died; in the other fatal case, the treatment is not known. The Doctor attaches great importance to "venesection, cups, and vesicants," and to "the powerful agency of calomel." We do not propose to enter into the unprofitable discussion just here as to "the powerful agency of calomel" in such cases. We will simply remark that just as good results have occurred in the practice of others when calomel has not been used. By this remark we would not, however, place ourselves on record as opposed to the use of mercury on more appropriate occasions.

Dr. J. Larendon, Houston, reports a most interesting case of

Femoro-Popliteal Aneurism, weighing 3½ pounds, Requiring Amputation of the Femur at the Upper Third—Recovery. In this connection, we would direct attention to the synopsis elsewhere given in this issue of the case of aneurism, reported by Dr. Mathews, successfully treated by large doses of iodide of potassium.

Dr. R. T. Flewellen's address as President is decidedly readable, and though scarcely susceptible of analysis in the character of notice we have undertaken, we may yet remark that it is characterized by careful study and preparation. We were particularly struck with the well selected illustrations, showing the distinctions between *instinctive* or *natural* medicine, on the one hand, and *rational* medicine on the other.

We come now to the papers in connection with the *sixth* session. The first of these is the President's address, which is more entirely of State interest than either of the other Presidents' addresses noted. It tells, however, of a very foolish thing done by the *Chamber of Commerce* of Galveston. It has appointed a committee of five *lawyers* "to investigate and report on the subject of yellow fever, and the necessary means to prevent it."

Dr. J. H. Sears' (Waco) *Essay* argues well in favor of the claims of the profession to a more elevated position than it generally occupies in certain communities, and urges certain reformatory measures, chief among which is "the speedy inauguration of a Department of Health by the General Government, with branch departments in every State and county in the Union."

Dr. Thomas D. Wooton, of Paris, exhibited a pathological specimen of *Calcareous Degeneration of the Aorta*, removed from the body of a horse trainer, aged about 40 years, and of intemperate habits. The clinical history is not known further than that he fell suddenly dead from his sulky which he was driving at a fair.

Dr. J. T. Field, Fort Worth, details at some length the report of a case of congenital "*complete atresia of the anus, with total absence of at least an inch and a half of the rectum, the extremity of which terminated in the upper and posterior portion of the vagina.*" The child was born February 24th, and the operation for the relief of imperforate anus was performed March 5th.(?) Death upon 30th day. Cause not stated. It is interesting to note the medicines used during these thirty days of torture. Among them we find aloes, assafœtida, belladonna, calomel, carbolic acid, castor oil, Dover's powders, gentian, glycerine, Hoffman's anodyne, nux vomica, paregoric, peppermint-water, potash (bicarbonate), potash (bitartrate), pyrophosphate

of iron, senna, sulphur, turpentine and whiskey; besides all this we have the performance of an operation, the consequent use of rectal tubes, the application of fomentations, etc., and yet the patient died! We are reminded by all this of the pun upon the name of the renowned Dr. J. Lettsom, who, it is said, was in the habit of signing his name I, instead of J. Lettsom. It runs as follows:

"When sick folks do to me apply,
I blister, bleed, and sweats 'em;
If after that they choose to die—
I. Lettsom."

In the next paper, Dr. Greenville Dowell, Galveston, describes in detail the operation which he has planned for the *Radical Cure of Hernia*. It is because of this operation, perhaps, more than any other of the many of which he is the originator, that he has gained so great celebrity as a surgeon, especially in the Southwestern section of the United States. * This operation has been performed by the author, Professor Rankin, of the Texas Medical College, and others, with the most remarkable results; but, unless it be that because Dr. D. has confined his contributions chiefly to Southern journals, no notice seems to have been taken outside of the circle of his immediate friends of his valuable suggestions. Perhaps it will remain for some foreigner to catch the idea, carry it into successful practice, and publish it as an invention or discovery of his before it will become known in this country, notwithstanding the fact that "our distinguished and lamented Prof. Stone originated the proper idea when he said no operation would ever be successful unless it brought the dis severed parts into the most perfect apposition and secured them in their proper places." *

Dr. L. S. Rayfield, Jefferson, reported a case of *Stone in the Bladder, complicated with Urethral Fistulæ—Lithotomy by Lateral Method—Recovery*. The calculus consisted of a nucleus of oxalate of lime, nearly as large as a turkey egg, and an external coating of phosphates. The mass weighed three ounces.

Dr. John S. Dunn, of Tarrant county, contributes quite an interesting *Report on Strabismus*, though it contains nothing new. Such reports, however, occasionally made in the volumes of Society transactions, have their valuable service, and should be encouraged.

Dr. Thos. D. Wooten, Paris, reports a case of *Multilocular*

*The synopsis prepared of Dr. Dowell's operation is crowded out of this issue but will appear under the head of *analyses, selections, &c.*, in our next. In the meantime, we take it upon ourselves to announce that the author is about to publish (by subscription) a work on *Hernia*, a task for which his friends believe him to be well qualified.

Ovarian Tumor, which he removed by ovariectomy with success from a young lady, aged 19 years. The tumor with its contents weighed 50 pounds, while the weight of the patient without the tumor was not more than 75 pounds.

Dr. W. A. East, Austin, presents a *Report on Epidemics, etc.*, accompanied by a *Report on Dengue and Meteorology*, prepared by Dr. J. M. Litten, President of the county (Travis) Medical Society. From these reports we learn that *dengue* "prevailed almost universally during September and October, 1873." The symptoms in some cases at first were distinctive of yellow fever, but were wanting in those marked characteristics that place a diagnosis beyond question. A copious perspiration often occurred about the second or third day, having an offensive smell and imparting a yellow tinge to the clothing. The skin resembled scarlatina more than rubeola. There was observed no evidence of contagiousness. As usual, the disease was not fatal nor were there any sequelæ, though convalescence was sometimes tedious.

In this same report, Dr. B. F. Hadra reports the occurrence of six or seven cases of *Trichina Spiralis*, all in one family, due to eating uncooked pork. The symptoms were chill, muscular pains and soreness, catarrhal symptoms with those of irritation of the mucous coat of the stomach and intestines, loss of appetite, increased thirst, depression of spirits, and œdema of the face, eyelids, and extremities; pulse rapid, temperature increased, slow convalescence. No death. Treatment not reported. By the microscope, little cysts, containing threadlike, spiral and round worms were detected in the meat.

In the *Report on the Health of Denison 1873*, by Dr. A. W. Acheson, we find that this town, in Grayson county, laid out in 1872, received such an influx of people that its population within three months numbered about 3,000. Hence we find overcrowding, want of acclimation, insufficient sanitary provisions, &c., with the consequent train of diseases. But the scourge which carried off about 60 out of about 65 attacked, occurred during August, September and October, 1873. From the history, symptoms, fatality, &c., we see no reason why it may not be called cholera, especially in view of the fact that this disease was undoubtedly the scourge, along with yellow fever, that did such sad havoc in certain other sections during the same year, between which points of infection, however, and Denison there does not appear to have been any direct communication. While we recognize that we are as yet in the minority on this question, we are still quite well persuaded that the time is near at hand when we shall cease to look always to the East for

the approach of this dread destroyer of human life before we recognize its presence among ourselves. But we shall reserve for some other occasion the discussion of the proposition here intimated. Of obstetrical interest, one-third of the pregnant women are said to abort—attributable to congestions of the uterus arising from malarial, “or the irritations of diarrhoea and dysentery arising from the said cause.” Regarding the oxytotoxic properties of quinia, he remarks, “if physicians in non-malarious districts find quinia liable to produce abortion, we can find double the number of cases produced by want of it.” We regret that we have not the space to give a more extended synopsis of this exceedingly interesting and profitable report.

Dr. John H. Pope presented a report on *Yellow Fever in Marshall*, 1872—the first epidemic of the disease that ever prevailed at this place, elevated 451 feet above tide water. There were about 125 cases and about 35 deaths. There were 16 cases of black vomit, of which 2 recovered. Some of the cases reported raise anew the question of possible contagion.

Dr. E. Palmer’s (Houston) report contends that the *Epidemic in Calvert*, 1874, was hemorrhagic malarial fever, not yellow fever—the malarial fever attacking the stomach by preference, causing black vomit. This report is very valuable as enumerating other causes of black vomit than yellow fever.

Dr. Greenville Dowell, however, in his report on the *Texas Yellow Fever and Dengue Epidemic*, 1873, after a brief account of the dengue and yellow fever in Galveston, maintains that the epidemic at Calvert, where he went at the moment of greatest distress to offer his services, was yellow fever. About 550 cases occurred; of these about 165 died.

Dr. T. G. Heard offered some well-timed and practical *Remarks on Yellow Fever*, based on clinical facts.

Dr. J. F. Matchett, of Brenham, gives an interesting *Historical and Clinical Sketch of Yellow Fever in Texas*. While we cannot altogether endorse certain of his suggestions—our teachings being obtained from another school of authors—the paper is of value in a historical point of view.

Dr. R. H. Harrison’s account of the *Epidemic of 1873* [Yellow Fever], in *Columbus*, is also a valuable contribution.

Dr. C. H. Wilkerson contributes a *Table showing weekly temperature, &c., during June, July, August, and September in Galveston, New Orleans, Mobile, Shreveport, and Memphis*.

The volume closes with a report by Dr. J. Cummings of a *Case of Puerperal Eclampsia*, which ceased after turning and delivering the child.

Transactions of the Kentucky Medical Society. 19th Meeting. Held at Shelbyville, April, 1874. DR. J. B. BAKER, Shelbyville, *President*; DR. J. A. LARABEE, Louisville, *Secty.* Pamphlet. pp. 262.

This is a handsomely printed volume. The first paper is the *Address of the President*, elected at 18th session, Dr. J. W. Thompson, Paducah, which is of State professional interest. We venture the opinion, however, that a century hence, the disapprobatory views expressed regarding the so-called "woman's movement" will not be popular. Dr. T. is undoubtedly correct in stating that it is a "well established fact that no beginner should embark in the practice of a specialty."

Dr. Ely M'Clellan, U. S. Army, contributes a paper on *Fibroid Tumors of the Uterus*, which in the space of 26 pages gives a capital resumé of the latest views on this subject. It in itself would be a most valuable addition to the library of any practitioner, though we are not aware that it has been published in separate form.

The Report on Surgery by Dr. R. F. Logan, of Shelbyville, is very creditable in view of the heavy labor and careful study required for the performance of such a task. Regarding anæsthetics, however, we think it demonstrable that statistics neither "prove" nor "appear to prove that chloroform [properly administered] is eight times more dangerous than ether." The contrary statements so often made by the enemies of chloroform are based upon reports that entirely exclude large experiences which show no death from chloroform, and which, if taken into account, would very materially change the relative mortality by the two agents. Let the medical press combine with such unanimity as most of the Northern journals do to report every death from ether, and again the relative mortality would be changed. As for other items in the report prepared nearly a year ago, it contains but little that at this late day is not already familiar to our readers.

Dr. Lewis Rogers' (Louisville) report on *Climate in Pulmonary Consumption, and California as a Health Resort*, is the result of some observations and inquiries made during a brief visit to California, 1873. He thinks he has "observed more recoveries among those who did not change their place of residence than those who did;" though he believes "that judicious travel, and a climate selected with a careful adaptation to each individual case may be productive of infinite good." As to the peculiar claims of California as a health resort, he gives a very correct opinion, in our judgment, in stating that "there is

no climate in the world, and there cannot be, which possesses specific powers in the cure of pulmonary consumption."

Dr. E. S. Gaillard's report on *Cerebro-Spinal Meningitis*, which he says was written *currente calamo*, is characterized by that ease of style which belongs to all his productions. Without the space at our command for full statement of the differences of opinion between us, it would scarcely be fair to the author nor just to ourselves to enter into a criticism of his views. In connection with one of the cases that fell under Dr. Larabee's care, he mentions having discovered in the stools several specimens of an entozoon—the tricocephalus dispar—which has seldom been seen in this country,

The essay on *The Medical Border-Land*, read by invitation by Dr. Andrew McFarland, delegate from the Illinois State Medical Society, dwells upon the influence of the mind upon the body. He thinks that "three-fourths at least of all 'functional nervous affections' is mental disease purely."

Dr. D. W. Yandell, Louisville, contributes an *Abstract of Six Cases of Ovariectomy* he has operated on at St. Joseph's Infirmary, Louisville—4 recoveries, 2 deaths. The tumors weighed respectively 84, 60, 58, 42, and 39 pounds; the sixth was an incomplete operation, owing to extensive adhesions, extending far above the umbilicus, and others deeper seated. He excised a small portion of the tumor, the wound healed, but the tumor refilled; he drew off about 12 pounds of fluid; in case it refills, he proposes to use iodic injections and then open the remainder of the cyst through the roof of the vagina, as successfully practiced by Dr. Noeggerath, of New York.

Dr. S. A. Foss, Laconia, presents a *Report on Registration*, showing the imperfections of the law now in force, and urging amendments. In support of his views, he quotes largely from the writings of Dr. L. S. Joynes, of Richmond, whose masterly contributions on this subject entitle him to be characterized as "high authority." Dr. Foss deserves high commendation for his indefatigable zeal and labor to advance the sanitary interests of his State.

Dr. Dudley S. Reynolds' (Louisville) paper on *Diseases of the Conjunctiva*, though a valuable one in most particulars, dwells at too great length for a volume of *Society Transactions* upon points of anatomy, &c., detailed in the usual text books. During 1874 he performed canthoplasty 108 times for chronic trachoma, without a single disappointment as to result.

Dr. J. A. Larabee's paper on *Summer Complaints of Children* furnishes an excellent resumé of the subject in its various phases.

We have already given in this volume, page 292, a lengthy abstract of the paper by Dr. R. H. Gale, Louisville, on *Removal of Calculus from the Female Bladder by Dilatation of the Urethra*.

Albuminuria is the title of a creditable paper by Dr. Wm. Bailey, of Louisville, giving the results of some of the latest observations of pathologists, &c.

We wish we had the opportunity to make some extracts from the valuable report of Dr. Frank C. Wilson, of Louisville, on *The Therapeutic Properties and Uses of Oxygen Gas*, which contains the results of some original experiments. No mention is made however, of any anæsthetic property—an effect which the experiments by Dr. W. B. Gray (page 259 *et seq.* of this volume of the *Monthly*) suggest.

The paper by Dr. C. S. Fenner, of Louisville, on *Pathology and Treatment of Glaucoma* contains scarcely anything not found in the books.

The address on *The Physician* by Dr. Edward Richardson, of Louisville, was, no doubt, well received as a popular address, as it deserved.

The other address by Dr. J. J. Speed, of Louisville, on *Has Medicine as a Science Advanced?* is also one worthy of record. Such addresses as these two ought to be published in the daily papers; we are sure that a more correct, popular estimate would be placed upon our calling and profession.

Dr. Lunsford P. Yandell, of Louisville, contributes a historical report on the *Medical Literature of Kentucky*, which of course is of value.

Transactions of the Medical Society of New Jersey. Held at Long Branch, May 23-24, 1874. Dr. G. H. LARISON, Lambertville, *President*; Dr. WM. PIERSON, Jr., Orange, *Secretary*. Pamph., pp. 270.

The New Jersey Medical Society is the oldest organization of the kind in America—dating back to 1766.

The *Address of the President* elected 1873, Dr. T. J. Thomson, Perrineville, contains some valuable remarks on Medical Truthfulness. "There is no profession in which fixed principles in regard to truth are more necessary."

Dr. J. V. Schenck's (Camden) essay recommends the use of *The Obstetrical Forceps* "to shorten the pangs of natural labor." Though some experts have applied forceps with good results, their *general* use would result in injury to mothers and children. Sir Henry Thompson justly remarks: "*all instru-*

ments are to be considered evils, more or less, never to be resorted to unless a greater evil be present."

Dr. C. J. Kipp, Newark, contributes a good paper on *Affections of the Eye from Small-pox*, but is not susceptible of analysis in the limited space at our command.

The remainder of the volume is filled with County reports, which contain some very instructive cases. But from the very manner in which they are reported, synopsis is difficult. The Standing Committee, however, addressed a circular to each of the county reporters, asking experiences regarding the use of (1) chloral, (2) hypodermic medication, and (3) the question, "Do the prescriptions of physicians, as a general thing, tend to make drunkards?"—to which last inquiry the almost universal observation of reporters answers negatively.

The careful analysis of the full replies received by the committee regarding chloral and hypodermic medication would have made an exceedingly valuable paper in itself. As it is, however, the report is valueless, necessitating on the part of him who undertakes a review the careful reading of every individual report that is made, and the compilation of tables. All that we can here venture to do is to say that experiences and opinions regarding the use of chloral differ widely, whereas there is great unanimity in favor of hypodermic medication.

Among other items worthy of special remark, we find that the reporter for Mercer Co. records the prevalence of *potter's asthma and consumption* due to inhalation of particles which float in the pottery atmosphere. The results are chronic bronchitis, emphysema, dilated bronchi, cavities and obliteration of the ultimate vesicular structure, and consolidation and destruction of lung tissue.

Another reporter recommends *chloral hydrate in whooping-cough* every two to four hours—to be commenced as early as possible after the whoop appears. Improvement is usually apparent in two days.

Dr. McLean, Monmouth, has successfully employed *quinia hypodermically* in a few cases of malarial fevers, but the injected points were subsequently affected by abscesses.

The Burlington Co. reporter believes *iodide of ammonium in perityphlitis* more reliable than iodide of potassium. Dr. Sharp, of same County, reports a case of *puerperal convulsions successfully treated by hypodermic injection of three drops of veratrum viride*.

Dr. A. Marcy, Camden Co., makes hearsay mention of a case of *hip-joint disease resulting in a valvular opening into the bladder*. "The patient remains in the condition of a case of hip-disease after the acute stage has passed."

From Cumberland Co., Dr. Jos. Sheppard reports a case of *concussion of brain with fracture of lower maxilla—recovery*.

Dr. R. M. Bateman mentions having cured *polypus uteri* by application of acid nitrate of mercury.

Dr. Luther G. Halsey, Gloucester Co., details an interesting case of *ruptured uterus—death*.

Dr. B. D. Carpenter has successfully treated *tetanus* with chloral, morphia, cold to the spine, absolute quiet, &c. He has seen 26 cases of traumatic tetanus out of 37 get well; and in two, at least, of the 11 fatal cases, it would be scarcely fair to attribute death to lockjaw. In proof that "it is *not* probable that the condition of system requisite to the inception of tetanus is a specific poison circulating in the blood, as in hydrophobia, but a morbid condition of nervous system arising from a peculiarity of local atmosphere and local geology, one or both," he states that "one case of tetanus occurs in about 30,000 wounds of all sorts in the city of New York, while in portions of Long Island a case will occur in less than 200, while but a few miles distant on the same Island, no case has ever been known to occur."

Dr. M. Abel, Hunterdon Co., reports a boy 5 years old *poisoned by eating the leaves and berries of the deadly nightshade*. Opiates contracted the pupils. The final result is not stated, though we are left to the legitimate inference that the child recovered.

Dr. C. W. Larison, of the same county, details a case of *poisoning by (tincture) aconite*. While applying the aconite for the relief of facial neuralgia, about 3j was spilled upon an excoriated surface on the scalp, which occasioned alarming symptoms. Recovery under use of "quietude, free ventilation, the external and internal use of alcohol and coffee, and strychnia."

Dr. A. Treganowan, South Amboy, narrates a case of *gangrene of the carotid artery from tonsillitis* in man aged about 20 years. Death resulted from hemorrhage.

Dr. S. H. Hunt, Monmouth Co., delivered a woman at her fifth month of a *child weighing 1 $\frac{3}{4}$ pound*; the child lived one day.

Dr. T. J. Thompson reports *failure with chloral in a case of tetanus*. He extols the *warm vapor bath in cerebro-spinal meningitis*. In a case under his care, after the use of the bath, "there was immediate relief of pain, the muscular rigidity gone, the skin returned to and exercised its normal functions." Bromide of potassium, however, was the remedy of chief reliance for cure.

In a case of *trifacial neuralgia*, treated by Dr. Matison, Mor-

ris Co., by *deep injection of chloroform* (20 minims), complete success was the result, after failure of the usual remedies.

We note the fact that Dr. (Miss) Sarah F. McIntosh, Patterson, has successfully used chloral to hasten the dilatation of the os uteri in labor, because the reporter (page 85) states that he used it unsuccessfully for the same purpose, and remarks that "he was caught once, but only once, in much the same way in the earlier days of chloroform, to which he resorted to hasten uterine relaxation." The usual results in other experiences prove that his cases were both exceptional. A few days ago, a good meaning medical friend said he "never intended to use Indian hemp again in chorea, for it had always disappointed him." Further conversation revealed the fact that he had never seen but two cases of the disease, in only one of which had he *thought* of using this agent, but the patient recovered before he even gave a dose. Clearly, the experience (?) of this friend is not sufficient to set aside the more favorable statements of a host of authors. We leave it to the reader to apply the remark to the case of the reporter, who has had, as he confesses, experience with chloral in only one case of rigid os uteri. Miss McIntosh's observation finds confirmation in the experience of a host of other practitioners.

We regret that we have not had the space to give more lengthy notice of some of the reports, and that we are compelled to omit mention of others—several of which are very interesting and valuable.

Letter to a Committee of Citizens on the proposed Schuylkill Drove-yard and Abattoir. By JOHN H. RAUCH, M. D. (Treasurer Amer. Pub. Health Assn.), with Medical Opinions on the Subject. Pamphlet. pp. 16.

Dr. Rauch "from a strictly sanitary stand-point" thinks the proposed site "one of the most undesirable that could be selected," which opinion is endorsed by 133 of the most prominent physicians of Philadelphia. "As a general rule, slaughtering," Dr. R. maintains very properly, should be carried on "under the supervision and control of the municipality."

Third Inaugural Address of CLARK BELL, Esq., (Nov. 24, 1874.) President Medico-Legal Society of the City of New York. Pamphlet. pp. 18.

The remarks on *Experts and Medical Testimony* are excellent. We want more fact—less opinion. "The medical expert should be a specialist in the widest, broadest, best sense of that term."

Health and Wealth of the City of Wheeling; also, General Remarks on the Wealth and Resources of West Virginia. By JAMES E. REEVE, M. D., City Health Officer, etc. Second edition, Enlarged and Illustrated. Price 60 cents.

The volume before us, which we have not the space to notice at length, is a perfect model for adoption by any who may propose to present to the public the relative claims of their State on the same grounds. It presents in a clear, simple and truthful manner the peculiar advantages of West Virginia for those in search of homes or property, while it serves the cause of sanitary science in a most admirable manner by withholding no fact pertaining to health or disease known to the author. We recommend the work most cordially to every citizen of West Virginia, who should acquaint himself with the facts herein stated connected with his State, to every person contemplating removal to that State, and to every student and author in mineralogy, botany, &c., and especially every one interested in sanitary science. It is, besides, a most entertaining book for the casual reader. It is full of practical suggestions.

Report of the Board of Health of Norfolk. 1874. H. M. NASH, President; Dr. WM. M. WILSON, Health Officer.

The Report exhibits a decrease of 60 in the number of deaths from all classes. It suggests that a Lazeretto be established in Hampton Roads and sustained by a combined appropriation from the State and City Treasuries. Since this is for the general good, it seems to us that the State alone should sustain it.

The total number of marriages during 1874 was 217; of births, *about* 700; of deaths, 554; estimated population of the city, 21,000. A number of the deaths noted occurred among non-resident sailors.

Diseases of the Stomach. Being the Third Edition of the "Diagnosis and Treatment of the Varieties of Dyspepsia." Revised and Enlarged. By WILSON FOX, M. D., F. R. C. P., F. R. S., Phys. Extraord. to the Queen, etc. With Illustrations. Philadelphia: Henry C. Lea. 1875. Cloth, octavo, pp. 283. (For sale by West, Johnston & Co., Richmond.)

This volume has been appearing by piece-meal with each monthly issue of the *Medical News and Library* for the past 18 months. It is now presented in book form—neatly gotten up.

Since so many of our readers are, or should be subscribers,

as well of the remarkably cheap and excellent Journal series of Mr. Lea, it cannot be necessary to say more than that the book before us, coming from an eminent authority of the present day, is one of the most valuable contributions on the subject now extant, is quite up to the day, and is eminently practical. The object of the author has been to give a knowledge of all the diseases of the stomach necessary to a proper comprehension of the symptom, dyspepsia, that so often baffles all treatment undertaken on the empirical plan.

The work is divided into two parts. The first treats of *Symptomatology of the Stomach*, devoting a section to a consideration of each of the following: the appearance of the tongue, derangement of appetite, thirst, flatulence, acidity and pyrosis, pain, vomiting, indigestion. Part II treats of *special diseases*.

A very complete index is appended, which adds materially to the value of the work for ready reference.

Some Further Observations on Torsion in the Arrest of Hemorrhage. By E. T. EASLEY, A. M., M. D., Author of a Prize Essay on the "Circumstances Modifying the Mortality of Amputations," etc. Dallas, Texas. pp. 12.

The author thinks "it has been satisfactorily proven that there is not a safer method, and one which interferes less with the reparative process of wounds." He has had opportunities "of watching patients after hemorrhage had been controlled by this method, and has never observed an unfavorable sequence." "With the ligature, the inner tunics [of the artery] are divided in a linear manner, and more or less regularly, while the outer coat must slough or ulcerate through before the ligature can come away;" whereas, by torsion, the inner coats are not only divided, "but they are ruptured, lacerated and separated from the outer, every facility being thereby afforded for their retraction." * * * "The external coat is closed over the orifice by the twists that have been made, and the arrest of hemorrhage as effectually secured as by any means that could be devised."

The paper does credit to the author, and is of practical value to the surgeon.

We acknowledge with thanks receipt of full files of monthly catalogues of German, French and English publications from Messrs. B. Westerman & Co., New York; also, *The Influence of the Climate of Colorado on the Nervous System*, by Dr. Chas. Denison, Denver, Col. Reprint from Arch. Elect. & Neurol. Also, *Transactions Wisconsin State Medical Society*, 1874.

Editorial.

THE ASSOCIATION OF MEDICAL OFFICERS OF THE CONFEDERATE STATES ARMY AND NAVY.

We are requested by the President of this organization, Surgeon General S. P. Moore, to state that the *second annual session* of the Association, appointed to convene in this city next July, will be postponed until 11 A. M. (Tuesday), October 19th.

This postponement is made because of the disagreeable heat which usually prevails in our city during the summer months. The temperature of October, on the other hand, is generally delightful, and the season as to weather is most desirable. Besides, the sixth session of the Medical Society of Virginia will also convene in Richmond at 7½ P. M., (Wednesday), October 20th, 1875; and it is earnestly desired that visitors in good professional standing from other States, in attendance upon the session of the former organization, will remain over to participate in, or at least to witness the proceedings of the latter Society. The fair of the Virginia Agricultural Society—always a pleasant occasion—will begin October 26th. We are advised that this exhibition will be more than ordinarily attractive and enjoyable.

We have taken it upon ourselves personally to send notice of change in the time to some of our Southern exchanges, in the hope that those, at least, which did so much to organize the Association will now unite with us in urging a large attendance upon the *Second Annual Session* of the organization, which has a most laudable professional and scientific object in view. And if the active energy of the officers-elect to make this session a success is properly rewarded, this convention will not have been assembled without profit.

In our June number, 1874, will be found a full synopsis of the constitution and by-laws, and of the proceedings of the first session, held in Atlanta. We earnestly hope that every medical man of good standing, connected with the late Confederate States Army or Navy, will unite himself with this Association, and come to the session to assemble in this city prepared to contribute something of his experience and knowledge to the cause of medical science or art.

VIVISECTION.

J. C. DALTON, M. D., Professor of Physiology in the College of Physicians and Surgeons, New York, has felt himself called on to write a handsomely gotten up little book, in defence and support of Vivisection; or, "Experimentation on Animals as a Means of Knowledge in Physiology, Pathology, and Practical Medicine." Of course he writes for the non-professional; and, one would think for the *ignorant*, the stolid, and stupid. But no; it is for the intelligent, good, tender-hearted friends of dogs, cats, hares, and the like, who can tolerate the wringing off of a chicken's head by the cook, or the cutting of a hog's throat by the butcher, but who send up a piteous wail when the Doctor experiments, in the most guarded manner, on an animal for the purpose of acquiring a knowledge to be applied to the highest purposes of humanity. It is all well enough to lash and run a bullock around the butcher's pen till he is foaming with perspiration and panting for breath, and then cut his throat and let him bleed to death, in order to get a good beefsteak for breakfast; but it is all wrong to lay bare an artery in a dog, or test the sensibility of a nerve in a rabbit by a slight puncture, in order to save men and women, "who were made a little lower than the angels," from suffering and death by aneurism, or from a lingering martyrdom occasioned by neuralgia. It is not our purpose to extend this article into a review of the timely treatise before us, by Professor Dalton, nor to write an essay upon the subject of vivisection; but simply to enter a protest against the effort made by good meaning, but misguided men, in trying by legislative enactment, to suppress experimentation on animals for physiological, pathological, and therapeutical purposes, conducted in a proper manner by surgeons and physicians.

Dr. Dalton, in setting forth the *character*, the *necessity*, and the *results* of these experiments, has furnished a complete vindication of this practice, and shown up the gratuitous assumptions of men, who assert that the knowledge thus acquired amounts "to a wicked contribution to human knowledge, which mankind would be all the better off for not knowing."

The ground taken by the advocates of a legal prohibition of vivisection is, that it involves *cruelty* to animals. "Cruelty," says Dr. Dalton, "is the wanton destruction of life and in-

fliction of pain, either for the gratification of a morbid ferocity, or for an unthinking amusement which disregards the suffering it may cause;" but, as he alleges, neither of these faults can be charged on scientific investigation. But, we aver that if vivisection involved even far greater suffering than it actually does, the end to be attained would justify it, since the object to be gained is one that subserves the welfare of *man*; and *animal* life should be sacrificed in the interests of that being that stands at the head of God's workmanship.

If we were now to eliminate from our accepted system of physiological knowledge all that has been added to it by experimentation on living animals, we should blot out a whole sphere of knowledge which is now applied to the prevention and cure of diseases. And, if the factitious whims and caprices of the blatant friends of the brute creation are to govern legislators, and impel them to strike from the existing laws enacted for "the prevention of cruelty to animals," the clause which excepts "*properly conducted scientific experiments*," then we must submit to the sudden arrest of a mode and line of inquiry and investigation which promises quite as much, if not more than any other now in the service of physiology, pathology, and therapeutics. We take pleasure in recommending the readable little book of Dr. Dalton, published by F. W. Christern, New York, especially to the non-professional, as containing, in a nutshell, a most satisfactory vindication of vivisection—one that prejudice and impulse may override, but cannot answer or refute.

LEGISLATIVE SHORTCOMINGS.

On going to press, we are not advised that anything has been accomplished by the Virginia Legislature, either as to the necessary appropriation to enable the State Board of Health to continue its organization, or as to the proposed establishment of a State Board of Medical Examiners; and we fear that it will be our unpleasant duty to record in our next issue the utter failure of both propositions.

It is not our purpose again to present the objects of these proposed measures, nor to advocate their necessity. These

things we have already done; and to argue in their favor now would be to reiterate truisms that have become stale by repetition, though none the less forcible in their application. Our object is simply to remind the profession of Virginia of dereliction in duty, and by thus reminding them we hope to secure such an immediate concentration of effort as will secure the object in view.

We will state for encouragement that should the proposed measures fail, the defeat would be a remarkable one, in that it would occur as the result of *no opposition* that we have heard of from any quarter. On the contrary, both of the suggestions have able advocates in the Legislature, among whom we find Drs. Lawson, Quesenbury, Moffett, Maj. Kirkpatrick, and others of like ability. There are others, in the profession and out of it, who have done as much as it was possible to expect of them to secure the necessary enactments; and among the latter class, we acknowledge with true pleasure valuable services rendered by certain of the clergy of Richmond. The *Insurance Advocate*, the only special journal, published South, representing the claims of life insurance companies, has also devoted its editorial columns time and again in urging legislation. In case, then, of failure, to whom will the blame belong? We answer, in the first place, to those of the General Assembly who fail to inform themselves as to the objects of the measures proposed, and thus become neglectful of plain and obvious duty. For we cannot conceive how it is possible for sensible and observant men, who have any concern for human health and life, and who have any respect for the revelations of progressive science, so to stultify themselves as not to recognize the importance of a well organized *State Board of Health* on the one hand, and on the other, not to see the necessity for a better educated class of physicians in certain sections of Virginia. They must know that even college diplomas, as now awarded by some Faculties who send their graduates out into almost every community, do not of themselves furnish evidence of proper ability to cope with even the simplest disease, or to give advice regarding the most rudimentary principles of sanitary science. Moreover, were legislators to inform themselves as to the laws of other States, they would find that, as to Boards of Health, they were rapidly removing causes of

preventable disease, and thus year by year increasing the material prosperity of their States; while as to Boards of Medical Examiners, which are being organized by Legislatures in States surrounding Virginia, the effect will inevitably be that those applicants for practice who recognize themselves as unable to pass the more rigid examinations of the State Boards of Examiners, or who may be denied license to practice by such Boards, will sooner or later find their home in Virginia, and thus this Commonwealth will become more than amply stocked with ignorant doctors.

In the next place, we answer that the profession of Virginia will, in great part, be justly blamable. If physicians do not stand as the guardians of public health and life, who could reasonably be expected to occupy such positions? The Hippocratic oath taken at the moment of graduation requires that physicians shall assume such responsibility, while the Code of Ethics, which some practitioners regard next to immaculate in its doctrines, urges that physicians should "be ever vigilant for the welfare of the community." Moreover, the Medical Society of Virginia has repeatedly, in open session, without a single disapprobatory remark from any member, declared in favor of both of the measures named, and formal resolutions have been adopted by local societies showing unanimous approval; and yet, what *real* effort has been made on the part of the profession for the accomplishment of the ends in view? We venture the assertion that not more than 5 per cent. of the members of all the Societies represented by these resolutions, and the committees appointed in accordance with them, have taken any active interest in trying to get the enactments. Even when we, who are not on any of the committees, have approached some who have accepted positions as committeemen—thereby by implication promising their active support—and urged them to immediate action, we have been met by some such discouraging remark as "there is no use trying to secure the laws; former attempts having failed," &c. This is not indicative of the proper spirit with which to start out, and of course failure must follow. Knowing the difficulties to be contended with, the prejudices to be overcome, and the brief period that is left for the General Assembly to be in session, let the profession of Virginia com-

bine its united strength and devote its entire energy at once to accomplish that which it has been anxious to do for years past. Whatever our feeble effort can do to assist in this move will be most cheerfully given.

In the Notice of the Alabama Transactions, made in our last issue, we regret to find omission of reference to the valuable paper on the *Sanitary Statistics of Selma for a Period of Eighteen Months* by Dr. Benj. H. Riggs, the worthy Secretary of the Association. Dr. J. S. Weatherly, of Montgomery—not Weatherby, as our printers would have it—is the President-elect. The retiring President, Dr. Geo. A. Ketchum, of Mobile, wrote the excellent paper on the *Sanitary Needs of the People of Alabama, etc.*

We have received a number of letters from subscribers and others in Alabama regarding the notice made of the Transactions; some commending the notice; others charging us with doing only partial justice. We will state here, in reference to notices which may appear in the *Monthly*, that we individually are not by any means always the authors of them; at the same time we hold ourselves responsible for those that are not signed. If at any time the author of any book or paper that may be noticed believes himself to be incorrectly represented, or wishes to defend himself against any criticism, he may claim any reasonable space to do so, provided, always, that remarks of a personally offensive character are omitted.

The Cincinnati Case Record Company has sent us a sample of their *Physicians' Pocket Case-Record and Prescription Blank Book, with Visiting List*. From _____ 187 , to _____ 187 , for 30 patients weekly. In size, it is not so bulky as the "Visiting Lists" of other publishers, and it does not necessitate the carrying of extra blanks, since a sufficient number are furnished as a part of each book. By the arrangement adopted, the physician is enabled to keep constantly before him the diagnosis, prescriptions, &c., made at former visits. It is also arranged to begin with any day of any week of any month. One copy lasts 24 days. A printed calendar, and a table of poisons and antidotes, besides a blank cash account accompanies each book. Price, single copy, 35 cents; \$3.50 per dozen; with card printed on prescription blanks, \$6 for sixteen books.

Dr. J. G. Cabell, President, &c., entertained most sociably the Richmond Academy of Medicine, at his home, January 21st.

Miscellany, &c.

The Florida State Medical Society will hold its second annual session in Jacksonville, February 17th, 1875. The profession of the State manifests lively interest in the success of the organization.

The Medical Society of the State of New York will convene in Albany, February 4th-5th, 1875.

Messrs. G. P. Putnam & Sons, Publishers, &c., New York, will commence about February 1st the publication of a monthly series of *Clinical Lectures*, by representative American medical authors, after the order of Volkmann's "Sammlung klinischer Vorträge," which has met with great success in Germany. For the first year, the lectures will be sold separately at from 30 to 50 cents each. The February lecture will be by Prof. Lewis A. Sayre, on "Diseases of the Hip-joint."

Pneumonia, with Typhoid Symptoms developing early in the disease, has prevailed for the past month to an alarming extent in Louisa Co., Va., chiefly among the negroes. Patients who have taken opium at night have done best. The same disease, assuming a severe form, is also prevailing in Caswell Co., N. C.

Diphtheria of a very fatal type has been prevailing to a limited extent for the past six weeks in Mobile, Ala., being confined, however, to certain sections of the city. The same epidemic wave has passed over Richmond, and claimed a few victims.

Dr. J. Marion Sims has resigned his position as Visiting Physician to the Woman's Hospital of the State of New York, which he founded, and Dr. B. Fordyce Barker has been appointed.

Dr. C. F. Bevan, formerly Demonstrator of Anatomy in the College of Physicians and Surgeons, Baltimore, has been elected Professor of Anatomy in that College.

The St. Louis School of Midwives graduated fifteen German midwives Dec. 18, 1874. An English class is forming for the next session to begin Sept., 1875.

An Apothecary of Baltimore recently dispensed belladonna for syrup of senna. Result: death of Mrs. Susan Bowling January 16.

The Michigan Legislature has authorized a Standing Committee on Public Health.

Obituary Record.

Dr. Wm. Owen died January 22d, 1875, at the residence of his son, Dr. W. Otway Owen, Lynchburg, Va. He was the oldest native citizen of that place—being about 88 years of age. He commenced the practice of medicine about 1810 or 1812, and continued unintermittingly in the harness until about the close of the late war. In fact, until within a short time of his death, there were those among his old patrons who would not release him from professional attendance.

Dr. Owen, so far as we are informed, did not contribute to the medical journals, and thus we have no record of his many skillful operations. We record this error, growing out of his modesty, with the deeper regret in that he was a man of remarkable energy and vigor of mind and body, while, to say the least of his high abilities and successful practice, he was not outranked by any of his confrères; the record, therefore, of his skillful practice would have formed a valuable contribution to medical literature.

He was venerated and beloved by the community in which he had so long resided; and as a mark of the high esteem in which he was held by the profession, not only of Lynchburg, but of the entire State, he was elected an Honorary Fellow of the Medical Society of Virginia at its recent session in Abingdon.

Dr. William A. Gillespie died at his home in Louisa County, Va., January 10th, 1875, at the age of 72 years.

Our readers will remember him as one of the contributors to the columns of the *Monthly*. Some valuable articles from his pen on medical topics are also to be found in the *Boston Medical and Surgical Journal*; while on agricultural subjects, he was a frequent contributor to that most valuable journal, the *Virginia Planter and Farmer*. His early reputation as a medical writer was particularly due to his papers on the use of nitrate of silver, published long years ago in the Boston journal, and most of his many later contributions have been copied into other journals on both sides of the Atlantic.

He was an eminent physician of large practice up to the time of his death; and, to adopt the language of the *Planter and Farmer*, "he had done well his part in the family, in the community, in the church; and in all the relations of life, has left many hearts sorrow-stricken by his loss."

Dr. U. E. Ewing, the oldest physician of Louisville, Ky., died December 23, 1874, aged 75 years.

Virginia Mortuary Statistics for December, 1874.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHBURG.			
Health Officers.....		Dr. J. G. Cabell.				Dr. W. M. Wilson.				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		21	31	40	27	9	8	11	7		2	4	5
Number still born.....		3		11								1	
AGES. Ages unknown calculated.	{ Under 1 year.....	10		12		Color not given, 10				Color not given, 4			
	“ 3 years.....	5		6		“ “ “ 2				“ “ “ 2			
	“ 10 “.....	8		4		“ “ “ 4				“ “ “ 3			
	“ 20 “.....	1		5		“ “ “ 4				“ “ “ 3			
	“ 30 “.....	4		12		“ “ “ 8				“ “ “ 1			
	“ 50 “.....	11		10		“ “ “ 5				“ “ “ 1			
	“ 70 “.....	6		12		“ “ “ 4				“ “ “ 1			
	“ 80 “.....	6		4		“ “ “ 1				“ “ “ 2			
	{ “ 100 “.....	1		1		“ “ “ 1				“ “ “ 2			
	{ Over 100 “.....	...		...		“ “ “ ...				“ “ “ ...
Most frequent Causes of Death.	{ Accidents, &c.....	1		3									
	Apoplexy, Brain Congest., &c.....	3		2				1					
	Ascites, Dropsy, &c.....	1				1							
	Birth, Premature.....	1				1		1		1			
	Bright's Disease.....					2		1					
	Bronchitis.....			1								1	
	Cancer.....	1		1									
	Cholera Infantum.....	1											
	Convulsions.....			3								1	
	Consumption.....	10		19		1		4				3	
	Croup Membranous.....							1					
	Dentition.....	1		3									
	Diarrhoea, Dysentery, &c.....	3		1									
	Diphtheria.....	5											
	Epilepsy.....					1							
	Fever, Congest. & Remit.....							2					
	“ Puerperal.....	1											
	“ Typhoid.....	1		1		1							
	Heart Diseases.....					1		1					
	Hemorrhage.....	1		1		1							
	“ Umbilical.....			2									
	Inanition, Old Age, &c.....	3		4		2		2					
	Meningitis, Cereb. Spital.....			1									
Pneumonia.....	2		7		2		2						
Pregnancy, Fallopian.....					1								
Scarlet Fever.....	1												
Scrofula.....			3				1						
Tabes Mesenterica.....			1										
Trismus Nascentium.....					1								
Uremia.....					1								
		Census taken in February, 1874.				Population is estimated.				Population is estimated.			

Dr Hays

VIRGINIA MEDICAL MONTHLY.

VOL. I.

RICHMOND, MARCH, 1875.

No. 12.

Original Communications.

ART. I.—*Perityphlitic Abscess, due to Perforation of the Appendix Vermiformis, with Remarks upon the Surgical Treatment Thereof.* By J. W. S. GOULEY, M. D., Surgeon to Bellevue Hospital, New York. (Read before the Medical Society of the State of New York, Feb. 3d, 1875).

I have the honor to call this Society's attention to the subject of perityphlitic abscess and its surgical treatment, and beg leave to begin with the narration of a case in point.

Mr. ***, æt. 37, had for two years been under my care with a right oblique inguinal hernia, for which he was wearing a truss. At times he could not endure the pressure, and either got a new truss, or had the old one altered. On two occasions, the hernia became irreducible, but yielded to rest in the horizontal posture, and to hot fomentations, and in a couple of days he was able to wear his truss and resume his occupation.

In course of conversation, his wife reminded him that, two years before his present illness, he had swallowed one of his teeth, which had been accidentally broken, but he was sure that he had never since experienced any ill consequence, and had even forgotten the fact.

With the exception of the inconvenience caused by his hernia, he was always in excellent health until June, 1873. On the 13th of that month he was, as he thought, again troubled by his hernia, which he could not reduce, and complained at first of some uneasiness, but afterwards of unusual pain in the right inguinal region, and in the iliac fossa of the same side. Hot fomentations this time gave but slight relief, and he was obliged

to resort to anodynes to soothe his pain and obtain sleep. Rigor, followed by febrile reaction. Bowels constipated; cathartic. In spite of nutritious diet, tonics, stimulants, etc., he rapidly lost strength and flesh, and remained in that state until early in July, when he ate and slept better, suffered less, and began to gain strength. In the meantime, a swelling, which had formed in the right iliac fossa, was gradually increasing; but it was still very hard. No fluctuation could be detected. The patient lay on his back, with the right leg drawn up, and supported by a pillow. There was little change in his condition from this until the end of July, when he was able to go out of town. During the first few days of his stay in the country, he felt still better and stronger, and was well enough to walk about in the house. He was, however, soon again obliged to go to bed on account of a new accession of pain. The swelling increased rapidly, filled the whole iliac fossa, and extended even beyond the median line. He then had much febrile reaction, suffered greatly, and finally became quite delirious. In the middle of August, the abscess opened spontaneously at about two inches to the right of the median line and one inch and a half above Poupart's ligament. The discharge was fetid, but not profuse, as the opening was small. The physician under whose observation he was did not ascertain whether there was any foreign body in the pus discharged then or afterwards.

From the moment the pent-up pus found issue, the patient began to improve, and in October he was able to come to town, and to call upon me, though the parts were not entirely healed. In December, all discharge ceased, and cicatrization appeared complete. Mr. *** remained well until about the 1st of February, 1874, when he was again attacked with pain in the right iliac region, which swelled as before, but this did not disable him, and he continued to attend to business.

On February 21st, while out of town, he was suddenly seized with excruciating pain at the seat of the swelling which all that he took failed to relieve. He came home at once, and sent for me on the following day. I found him in great agony, and lying on his back, with the right leg drawn up. He had vomited several times, but the hernia was not down. Morphia was given internally, and hot fomentations were applied at the seat of pain.

The next day he suffered less. The tumor had increased considerably, and extended upwards to the level of the umbilicus, and laterally from the iliac crest to about one inch to the left of the median line. Obscure deep fluctuation could be felt. I accordingly advised immediate incision as for ligation of the external iliac artery.

On February 24th, Dr. Willard Parker saw him in consultation, and agreed with me as to the propriety of the operation, but advised delay.

On February 27th, fluctuation was very distinctly felt, especially at the seat of the old cicatrix. I then proposed to operate forthwith. To this Dr. Parker assented. The patient having been etherized, I made an incision six inches in length parallel to and one inch and a half above Poupart's ligament, cutting down, layer by layer, to the fascia transversalis, and freely laid open the abscess, from which about a pint and a half of very fetid flaky pus escaped. Neither in this nor in the washings of the cavity was there any foreign body; but, in dressing the wound, just as I was about to put in the first pledget of lint, I found at the bottom an oblong fecal concretion about the size of a bean. Afterwards, on cutting it open and carefully examining it, I found in it nothing like a fragment of tooth. The cavity was then filled with lint, to ensure slow union by granulation. The wound was dressed once a day, and healed completely towards the middle of May, when the patient was able to go out. His hernia has not since descended, and has given him no trouble. But as a precautionary measure, he still wears a truss. He is now (January, 1875) in excellent health.

REMARKS.—There are, in this case, points of sufficient interest to merit a few comments.

Was the abscess, directly or indirectly, caused by the hernia? If the hernial sac had contained a portion of the cœcum and appendix, the abscess would have pointed in the inguinal canal; as it did not, it is not probable that the hernia was a direct factor in the causation of the trouble. But did it operate indirectly in the production of the abscess—that is, had the pressure of the truss anything to do with the occurrence of typhlitis? It has been stated that undue pressure of a truss can cause this accident, and a case is reported in which such pres-

sure is said to have caused a perityphlitic abscess. This seems possible only when the appendix happens to be adherent at or near the internal abdominal ring, or is included in the contents of the hernial sac.

I am unable to give a positive answer to the question relating to the broken tooth, because such a foreign body might have passed out when the abscess opened spontaneously while the patient was at a distance. I am sure, however, that nothing like a fragment of tooth could be found in the discharges after I had made the incision. A tooth, or almost any other small foreign body, might well remain lodged in the appendix and create no irritation for a long time, but finally cause ulceration and its train of consequences, or might remain indefinitely in this situation without doing any harm. In his excellent essay on "*Abscess and other Diseases Consequent upon the Lodgment of Foreign Bodies in the Appendix Vermiformis*," published in the *New York Journal of Medicine*, November, 1856, Dr. George Lewis refers to the case of a man who died at the age of 88, and whose appendix vermiformis was found to contain 122 robin shot. During life, Dr. Lewis says, this man had never had any symptoms indicating disease of this organ. It appears that he was excessively fond of game, and that the shot found in the appendix were supposed to have been contained in the game eaten.—(*New England Medical Journal*, 1843).

There are numerous instances on record where, from the character of the foreign body extracted, it is evident that it must have been imprisoned in the appendix for a long time before giving rise to typhlitis.

Another point of interest and practical import in this case is the recurrence of perityphlitis after a lapse of nearly six months. It is questionable here whether the deeper parts had entirely healed before the cicatrization of the skin. What happened is, I think, something similar to that which we constantly observe taking place in cases of necrosis of the long bones, where a few spiculæ of dead bone escape after the opening of the abscess; the skin then heals over, and in a few months a new abscess is formed and bursts; more pieces of dead bone are cast off, the cloaca again closes, and this process is repeated at longer or shorter intervals, until the surgeon intervenes, makes a free in-

cision and extracts the whole of the dead bone, when the wound finally cicatrizes firmly from its base.

Dr. E. Krackowizer tells me that in 1862 he saw a patient who suffered from perityphlitic abscess four consecutive times during that year. The first abscess was lanced by Dr. Voss, and healed in a short time; the others all opened spontaneously—the last giving issue to pus in which was found a pear or an apple seed; from that time, the orifice healed firmly, and since then the patient has been perfectly well. In this case, the foreign body had probably, like a sequestrum, been imbedded in the tissues, and had caused the recurrent abscesses.

In the case of my patient, from the size and shape of the fecal concretion found in the wound, there is no doubt that it had escaped through a perforation in the appendix vermiformis, and from its color, consistency, and strong fecal odor, there is as little doubt that it had recently passed out of the intestine. But whether it emerged through a new perforation, or through an old one still unhealed, is not easy to decide. However, it seems probable that the old ulceration had not yet firmly healed. Be this as it may, it is of the greatest importance, even in case of spontaneous opening of the abscess, to make a free incision, a careful search for the foreign body, then cleanse the cavity and fill it with lint, to be renewed every day, and thus ensure slow union by granulation from the bottom. The wound ordinarily closes in from three to six weeks, but in the case under consideration it was about ten weeks in healing. Such slow union may be considered advantageous. But when there is an obstinate fecal fistula, it may be inferred that the perforation is in the cœcum, and not in the appendix. Not long since, I witnessed a case of this kind, in which several attempts had been made to close the fistula, but had failed.

The prognosis of this affection is very bad, especially in typhilitis stercoralis, where the foreign body drops into the peritoneal cavity. In case of intra-peritoneal abscess, circumscribed by adhesions, and in the true perityphlitic or sub-peritoneal abscess, timely surgical interference affords the best chance of success. Dr. Parker states that if the patient live over five days, it may be inferred that sufficient adhesions have formed to circumscribe the pus till it accumulates in large enough quantity

to break through them. (See p. 19 of Dr. W. T. Bull's essay on *Perityphlitis*, reprinted from the *N. Y. Medical Journal*, September, 1873).

Of the forty-seven cases tabulated by Dr. Lewis, forty-six died, and one only recovered. In the majority there was general peritonitis, and in most of the others the pus was circumscribed. The patient who recovered was reported as a case of inguinal hernia of the cœcum with the appendix adherent to the floor of the inguinal canal. These facts were afterwards verified on post-mortem examination—the patient having died of another disease one month after the wound had cicatrized. In this case, the abscess, which had pointed in the inguinal region, was lanced, and “a small triangular bit of bone was discharged.”

Dr. Bull gives (p. 11) an analysis of sixty-seven cases of perityphlitis, which exhibits the following results: twenty-eight cases of opening of the abscess externally through the abdominal walls; fifteen of opening into the cœcum; eight into the peritoneal cavity; two into the thorax; two into the rectum; two into the bladder; two into the internal iliac artery; one causing chronic peritonitis; six dying of pyæmia; one not ascertained. Of these sixty-seven cases (p. 21), thirty-four recovered and thirty-three died. The causes of death were: peritonitis in eight cases; pyæmia in six; hemorrhage from erosion of the internal iliac artery in two; empyema in two; hemorrhage from the incision made to let out pus in one; exhaustion in thirteen; cause not ascertained in one. Exhaustion appears to have been the most frequent cause of death in these cases, and has occurred oftenest in those where the abscess opened externally. Early incision would probably do much toward decreasing such mortality.

Many contributions to our knowledge of this subject have been made, both at home and abroad, but I preferred to quote from the papers of Dr. Lewis and Dr. Bull, as they embody all the essential points in the history, etiology, pathology and treatment of this grave affection. These two monographs are, I think, well worthy of the most careful perusal.

Incision as for Ligation of the Iliac.—Dr. Lewis, in 1856, proposed, as a rule of practice, early incision of the abscess as it is now done, and though he had never himself performed the

operation, he related a successful case (operated upon by Mr. Hancock, of London,) which he thought might well serve as a precedent. (See *N. Y. Jour. of Med.*, Nov., 1856, pp. 345-347.) The case to which he referred was published in the *London Med. Gazette*, 1848, and in the *Amer. Jour. of Med. Sciences*, 1849; and Dr. Lewis gives an abstract of it in his own essay. In commenting upon the operation, Dr. Lewis says: "If resorted to at all, the opening should be made early. If the symptoms are urgent and threatening, it must not be delayed on account of the absence of fluctuation." Too much haste in cutting is not judicious, and it is questionable whether the operation should be done before the seventh or eighth day.

Dr. Willard Parker is entitled to great credit for having recalled the attention of the profession to this method of treatment, and for suggesting its more general adoption. Two cases of perityphlitic abscess successfully treated by incision by Dr. Parker, were published in the *Medical Record* of March and June, 1867.

Besides these, and my own and Mr. Hancock's cases, twenty others, as far as I know, have been treated by incision by the following named surgeons:

Stiegle (case 4 in Dr. Bull's table) one case;

Dr. L. Weber (*New York Medical Journal*, 1871), one case;

Dr. E. Krackowizer (case 5 in Dr. Buck's table) one case;

Dr. H. B. Sands (*New York Medical Journal*, Aug., 1874), one case;

Dr. Chas. Kelsey (*Med. Record*, Oct. 1st and Dec. 15th, 1874) two cases;

Dr. S. B. Ward (*Medical Record*, November 2d, 1874), one case;

Dr. Samuel Whitall (*Med. Record*, May, 1874), one case;

Dr. I. P. P. White (case 9 in Dr. Buck's table), one case;

Dr. Gurdon Buck (case 10 in table contained in paper read to New York Academy of Medicine, September, 1874), one case;

Dr. J. R. Wood (note p. 16 in Dr. Buck's pamphlet), three cases—one died;

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Dr. J. C. Hutcheson, Brooklyn (communicated by operator), two cases;

Dr. R. B. Bontecon (*Trans. N. Y. State Med. Society*, 1873, p. 137), two cases;

Dr. Chas. A. Leale (communicated by operator), two cases;

Dr. J. H. Pooley, Yonkers (communicated), one case.

Making in all twenty-four operations with one death. These are all the cases treated by incision, as above described, that have so far come to my knowledge; but it is more than probable that since 1867, when attention was recalled to the importance of early incision, many surgeons have resorted to the operation who have not yet given publicity to their experiences. It is hoped, however, that they will soon do so and aid in popularizing this most valuable and life-saving mode of treatment.

ART. II.—*Mortality among Life Insurance Policy Holders.* By C. H. PERROW, M. D., and C. H. SMITH, M. D., Medical Examiners Piedmont & Arlington Life Insurance Co., Richmond, Va. (Read at the Convention of the Officers of Southern Life Insurance Companies, held at Bath Alum Springs, Va., 1874).

In presenting a tabulated statement of the rate of mortality among the assured in the Piedmont and Arlington Life Insurance Company of Richmond, Va., we have followed the plan and classification of one of the New York Life Insurance Companies, and prepared a set of tables based upon an inquiry into the causes of death in the mortality record of the Piedmont and Arlington Insurance Company. We have prepared these tables showing the whole number of deaths to June 1st, 1873. The causes of death and such other matter as we deemed important or interesting to insurance men, with the hope that by a comparison of the experience of our several companies, we may arrive at such conclusions as will enable us to institute reforms that will secure the correction of errors of the past.

First. We present Table I, showing the whole number of deaths (400) which have occurred among the assured in this Company since its foundation in 1867, and the causes by which death was produced:

Feb. 12th.—Dr. R. B. Bontecon has done *three* instead of two operations—one patient having died. This makes twenty-five operations, with two deaths, instead of twenty-four and one death.

J. W. S. G.

TABLE I—*Causes of Death.*

Abscess.....	1	Emphysema.....	1
Apoplexy and Paralysis.....	25	Fever, Typhoid.....	14
Bladder, Inflammation of.....	1	Fever, Congestive and Other.....	33
Brain, Acute Disease of.....	14	Fever, Yellow.....	3
Brain, Chronic Disease of.....	7	Gastritis & other diseases of Stomach.....	18
Bronchitis.....	3	Heart, Disease of.....	17
Bowels, Constipation of.....	3	Intemperance (form of disease not stated).....	5
Cancer.....	5	Insanity.....	2
Carbuncle.....	1	Kidney, Disease of.....	7
Casualties, (Railroad, Drowning, etc.).....	22	Liver, Disease of.....	15
Cerebro-Spinal Meningitis.....	7	Laryngitis.....	4
Child-Birth and Diseases Incident thereto.....	14	Lungs, Congestion of.....	7
Cholera.....	1	Narcotism.....	3
Cholera Morbus.....	3	Pleurisy.....	1
Convulsions (unexplained).....	1	Peritonitis.....	1
Colic, "Billious".....	2	Pneumonia.....	39
Consumption.....	54	Purpura Hemorrhagica.....	1
Delirium Tremens.....	1	Rheumatism.....	1
Diarrhœa.....	6	Scrofula.....	1
Diphtheria.....	4	Small Pox.....	3
Dropsy.....	2	Spleen, Disease of.....	1
Dysentery.....	19	Suicide.....	6
Duels, Personal Violence, etc.....	15	Syphilis.....	1
Erysipelas.....	2	Unknown, Found Dead, etc.....	3

TABLE II—*Zymotic Diseases.*

Intermittent, Remittent, Congestive, Typhoid, Yellow and Hemorrhagic Fevers; Variola, Diphtheria, Erysipelas, Cerebro-Spinal Meningitis, Cholera, Dysentery and Diarrhœa.

Ages.....	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70	27.75 per cent.
No. cases.....	6	7	15	8	17	11	8	15	3	0	1	91

In glancing over this table you will discover that the zymotic diseases [intermittent, remittent, congestive, yellow and hemorrhagic fevers, diphtheria, variola, erysipelas, cerebro-spinal meningitis, cholera, cholera morbus, dysentery and diarrhœa] constitute the largest group, 22.75 per cent. of the losses occurring from these causes.

TABLE III—*Malarial Fevers.*

Remittent, Intermittent and Congestive and Hemorrhagic Forms.

Ages.....	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	
No. cases.....	1	5	5	1	5	5	1	7	1	0	1	32

By referring to Table III, giving a report of the diseases recognized as purely malarial, it will be seen that malarial fevers form a large proportion, 33.25 per cent. of the zymotic diseases. Indeed, this malarial influence would constitute a still larger proportion if we included other zymotic diseases [cerebro-spinal meningitis, &c.], which probably have their origin in this cause. We do not see that any course can be adopted which will diminish the losses by zymotic diseases generally—though a larger experience than we now have, giving a larger average, may ena-

ble us to warn the Company to keep out of certain districts in which the purely malarial diseases seem to have caused an unusual death rate.

CONSUMPTION.—Next in importance in classification, by reason of the number of losses, is consumption.

TABLE IV—*Consumption.*

Ages	18-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	
No. of Cases.....	10	7	8	7	7	8	4	4	1	54

This table shows the deaths by this disease to be 54, being 13.5 per cent. of the whole number of deaths. This is only half the per centum of losses experienced from the same disease by the Northern Company alluded to in the beginning, and falls below the per centum of deaths from the same disease among the ordinary population. This last fact is gratifying, as it shows at a glance, without going deeper into causes, that our medical examinations have not been without practical benefit, apparent to all. In future experience, we hope to exhibit this result in more prominent figures. We have embraced in deaths from consumption not only those assigned to that cause, but other deaths which we thought fairly came under that head. There may be some few others which, perhaps, ought to be included in this class, for medical men, signing death certificates, seem singularly reluctant to name that disease as the cause of death; but the number of these which have resisted our scrutiny can be only very limited.

TABLE V—*Consumption.*

Deaths occurring each year during existence of Company, and per centage.

Year.	Total No. Deaths.	Death by Consumption.	Per cent.
1867.....			
1868.....	14		
1869.....	33	3	9
1870.....	79	10	12.65
1871.....	81	11	13.58
1872.....	96	17	17.7
1873.....	94	12	12.76
1874*.....	3	1	

*The year 1874 incomplete.

Table No. V is presented, which exhibits the mortality for each year of the existence of the Company, and the yearly losses from consumption, with the per centage of these losses on each year's mortality.

A consideration of the subject of hereditary taint in the consumptive losses shows—

- 3 losses where the taint proceeded from the mother;
- 2 “ “ “ father;
- 8 “ “ existed in one or more brothers and sisters;
- 5 “ “ manifested itself in uncles and aunts;
- 15 “ entirely clear of all hereditary taint;
- 21 “ where the cause of death of parents and brothers and sisters were said to be “*unknown*,” “not remembered,” &c.

It is probable that in a number of these last cases the hereditary taint existed, and it teaches us to insist on requiring applicants to refresh their memories, or by inquiry to ascertain the causes of death in their families, and to assign the causes in their applications, giving a family record, as nearly as possible, complete and accurate.

The value of our published “Instructions to Agents and Medical Examiners,” with regard to the consumptive element in applicants, is also made apparent, and a close adherence to these requirements is shown to be imperative.

We avail ourselves of the larger experience of the Northern Company cited, confirmed by our own, to require that in future no applicant be accepted who has ever had *hemorrhage from the lungs*.

In this connection, applicants who have received gun-shot wounds penetrating the lungs, should, if not rejected altogether, be received with great caution. We are convinced of the important bearing of light weight and of a quick pulse in cases where the least consumptive taint exists. All such cases should be rejected. They turn the scale against the applicant.

Our investigations also establish that the subjects of amputations, unless “excellent risks” in all other respects, should be rejected.

TABLE VI—*Brain and Nervous System.*

Apoplexy, Paralysis, Congestion and Softening of the Brain, Brain Fever, Insanity, Convulsions and Delirium Tremens.*

Ages.....	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	
No. Cases.....	3	5	8	7	7	7	7	2	4	1	51

*Only two deaths from delirium tremens.

Diseases of the brain and nervous system [apoplexy, para-

lysis, congestion and softening of the brain, brain fever, insanity, convulsions and delirium tremens] form the next largest group in the death list, there being 51 losses assignable to these causes, or 12.5 per cent. of the whole mortality. The hereditary tendency was a noticeable fact in certain apoplectic cases. In a certain number of these cases, the excessive weight in proportion to height of the subjects was also a prominent fact. Perhaps no single cause produces more dissatisfaction to agents and applicants than rejection in consequence of disproportion in height and weight. Yet our experience has proved that the heavy weights are specially liable to apoplexy, and fully establishes the fact that these elements, over-weight and hereditary taint, should always be carefully considered and allowed a full measure in the question of accepting risks, where they are involved.

TABLE VII—*Acute Disease of Lungs.*
Pneumonia, Bronchitis and Pleurisy.

Ages.....	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75	
No. Cases.....	1	4	3	6	2	6	7	7	6	0	1		43

Acute diseases of the lungs [pneumonia, bronchitis and pleurisy] have contributed the next largest quota to the list of deaths, there being 43 losses from these diseases, or 10.75 per cent. of the whole death rate. It is beyond our ability to suggest anything by which we might hope to diminish the rate of mortality among those accepted as "safely assurable."

Diseases of the *Heart have produced 17 deaths among the 400 in the mortality list*, or 4.25 per cent., as shown by

TABLE VIII—*Heart Disease.*

Ages.....	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	
No. Cases.....	1	2	1	3	1	5	2	2		17

The experience of this Company corresponds with that of others in establishing that deaths from heart disease are mainly among subjects more advanced in life. Four-fifths of the deaths from this cause were over 40 years of age, and three-fifths were over 50 years old. The records show that in only two cases rheumatism had been experienced by the applicants, and in one of these cases there had been pericardial trouble during the attack. In one case, palpitation of the heart had been experienced.

These records or applications are doubtless defective in noting the personal history of the applicants with regard to rheumatism and heart complications. Many applicants have been rejected by reason of their record on these subjects; but the considerable number of deaths in this class calls for close inquiry and full investigation of symptoms of heart trouble, and on the part of the Medical Examiner, a firm and rigid determination in reviewing their claims to insurance.

We have made no tabular statement of "*suicides*," *violent or sudden deaths*, but the subject claims a brief notice. The *deaths* from "*suicide*," "*accidents*," "*duels, or other violent causes*," "*sudden or unknown causes*," reach the remarkable number of 46. Some of these are traceable to the "Capitol disaster" at Richmond, Va., and various railroad accidents. The suicides and deaths from personal violence may be attributable to the unsettled public and social conditions soon after the war, and the Company may reasonably expect not to encounter these disastrous elements in the future, or, if met at all, that these causes will exist in diminished degree.

It is noticeable, however, that even under these disadvantageous circumstances to which allusion has been made, our losses of this class exceed, by a small per cent. only, the experience of the Northern Company, with which previous comparison has been made.

Possibly, if agents and Medical Examiners were enjoined to attach more importance to the moral hazard in life insurance, and the motives of men seeking large amounts of insurance were more closely scrutinized, we might hope to diminish this class of losses.

The Company having, step by step, put forth restrictions on the *insurance of females*, finally, under actuarial experiences, declined to insure them at all: The medical authorities, in their views, have always preceded in these reformatations, and now rejoice in the present conservative position of the Company on this subject. We do not doubt that women reach the ordinary expectation of life; but the impossibility of ascertaining their condition of health, their fitness for insurance—by any system of medical examination in vogue—renders them unsafe, dangerous and unprofitable risks.

ART. III.—*Gonorrhœal Ophthalmia—Ulceration and Perforation of the Cornea and Prolapse of the Iris—Recovery, with Restoration of Vision.* By BENJ. BLACKFORD, M.D., Lynchburg, Va. (Read before the Lynchburg Medical Association, Jan. 26th, 1875.)

There is no disease of the eye which physicians and ophthalmic surgeons are called to treat more alarming in its result and more virulent in its character than gonorrhœal ophthalmia; hence my apology for reporting a very malignant and distressing case that has been under my treatment for some weeks past.

W. W., a young gentleman from South Western Virginia, applied to me on the 22d November, 1874, for treatment of his eye. He informed me that during an attack of gonorrhœa, which was not then entirely well, he felt, one morning while at work at his desk, a tingling and smarting of his right eye, as if a little grit of sand had become lodged beneath the lids. Supposing it to be only the effect of a violent cold, he paid but little attention to it, except occasionally bathing the eye with cold water and applying wet cloths to the lids. The symptoms rapidly grew worse, and some friend gave him a collyrium, which, I have no doubt, was a solution of acetate of lead. Nothing seemed to afford him any relief; his eye continued to grow worse daily, and he became very much alarmed about it.

Upon examination, I found the right eye violently inflamed, eyelids greatly swollen, red and œdematous, and discharging a large quantity of purulent matter. On opening the lids, which was done with considerable difficulty, on account of the violent pain, in order to examine the condition of the eyeball, I found an extent of the violence of the inflammation which gave me very little hope or encouragement for a favorable result. The chemosis was very extensive, overlapping the cornea to such a degree that it was almost impossible to recognize its condition. I am free to confess it was one of the most virulent and worse cases of gonorrhœal ophthalmia I have ever met with in my practice, and the prognosis was very unfavorable.

It was about a week after the appearance of the disease before the patient applied to me for treatment, and he stated that it was not then as bad as it had been several days previous. What, then, should be my line of treatment? We should bear

in mind that although the disease, gonorrhœal ophthalmia, has received its name from that symptom which most readily attracts notice, namely, the profuse conjunctival discharge, superinduced by the inoculation of the specific poison of gonorrhœa, the real source of danger is the *cornea*; and that even were it possible by draining the patient of blood, materially to lessen, or even wholly to arrest the discharge, we might still fail to save the eye. It is not the flow of pus or mucus, however abundant, that should make us anxious, but the uncertainty as to whether the vitality of the cornea is sufficient to resist the changes which threaten its transparency—these changes being two-fold, rapid *ulceration* and *sloughing*. Do what we may, it most frequently happens that in cases of gonorrhœal ophthalmia, our best endeavors are in vain, and the cornea becomes irreparably damaged; still, I feel convinced that if we are unremittingly watchful to observe the changes which take place, either in the eye itself or in the general health of the patient, and careful to modify our treatment accordingly, we have done all our present knowledge of the disease can enable us to accomplish.

Not having seen the patient, as I supposed from his own statement, in the height of the inflammation, I determined as much as possible to follow the directions of Stellwag, and “begin the treatment with weak remedies, and, in case of need, to increase the strength, or pass on to more [active applications.” I gave the following prescription :

R. Hydrarg. sub-muriat.....gr. x.
Sodæ bicarb.....gr. xx.

M. S. Make one powder. To be taken at night, and followed next morning by a saline aperient. I also directed that the eye lids should be opened as much as possible, and a stream of lukewarm water be applied with a small syringe every two or three hours during the day. I injected tepid water under the lids at least twice a day, until every particle of purulent matter was washed away. This palliative treatment was pursued for several days with a decided beneficial effect, and was a source of great relief and comfort to the patient; the inflammation and swelling was greatly reduced; there was, to a great degree, subsidence of pain—sufficiently so, in the course of forty-eight hours, to enable me to examine somewhat the condition of the

cornea, I then applied a three-grain solution of the nitrate of silver, in addition to the existing treatment, with a camel's hair pencil, three times daily. In the course of a few days, there was considerable diminution of the purulent discharge; the folds of the conjunctiva had so far receded from over the cornea as to render it more prominent, enabling me to give it a more thorough and satisfactory examination. I found the peculiar cloudy opacity of the central portion of the cornea, and almost a complete loss of vision. In addition to the nitrate of silver, I directed that a two-grain solution of the sulphate of atropia be applied with a camel's hair pencil two or three times daily—alternating with the application of nitrate of silver. This treatment was continued four or five days, with slow and gradual improvement of the inflammatory condition of the eye. When the entire cornea was uncovered by the subsidence of the *chemosis*, I discovered on its inner and lower edge a small crescentic ulcer, having the appearance as if the cornea had been scraped with a finger nail. Although my patient was kept in a darkened and well ventilated room, the pain and photophobia were at this time so intense that I had great difficulty in giving the ulcer a satisfactory examination, even with a magnifying lens. I was satisfied, however, from its general characteristics, that this form of ulcer was the most dangerous I could encounter; and notwithstanding every precaution was taken to prevent its spreading, it continued to spread around the peripheral and towards the central portion of the cornea, almost reaching its pupillary margin. I was aware that the vitality of that portion was greatly impaired on account of its increased opacity, presenting rather a shriveled appearance, and throwing off a whitish, cheesy looking substance. I had but little hope of doing more than preserve the natural form of the eye, as all hope of effecting a restoration of vision had almost entirely vanished.

I was aware that if this ulcer continued to spread and grow in depth, the prognosis would be still more unfavorable; for if the posterior elastic laminae be involved, the suppuration and destruction of the cornea continue until it can no longer resist the intra-ocular pressure, and the degenerated structure gives way, the contents of the eye-ball escapes, and the eye collapses; or if the rupture in the cornea has not been very considerable, pro-

lapse of the iris and staphyloma may occur. In order to diminish as much as possible the intra-ocular pressure, thus relieving the cornea of a certain degree of tension, I directed that the atropia should be applied to the eye three or four times daily; and with a view of preventing the constant movements of the eyelids, and also to guard against external irritants, and to give support to the thinned ulcerated portion of the cornea, I applied the protective pressure bandage, so highly recommended in such cases. I determined at one time to perform the operation of paracentesis, and prick the ulcer through its deepest portion, and allow the aqueous humor to escape in order to limit the perforation, which I feared was inevitable, and not wait until the deep layers of the cornea were implicated; but my patient was so much opposed to any operation that I desisted.

Notwithstanding every precaution in my power to prevent it, perforation of the cornea ensued in a short time. My patient seemed to be aware of the time when it occurred, as he remarked to me at my next visit that he felt something give way in the eye that morning, and, to use his own expression, "some water ran out of his eye at the same time," and that it felt much smaller.

Upon removal of the pressure-bandage, I found considerable shrinking of the cornea, and a protrusion or bulging through the ulcer of a dark substance about the size of a pea or bean; the pupil was somewhat distorted, and had the appearance of being dragged towards the perforation. I was satisfied, upon a close examination with a lens, that it was a prolapse of the iris, and the aqueous humor had escaped doubtless at the time the patient spoke of.

I was apprehensive when prolapsus of the iris occurred that all of the symptoms of existing inflammation would become greatly exaggerated, but such was not the case. My patient did not seem to suffer any more pain; in fact, with the exception of a slight hyperæmia of the sclerotica at the time of the protrusion, the inflammation had almost entirely disappeared, and the eye was beginning to assume rather a healthy appearance. I endeavored to replace the prolapsed iris with a probe, but without success, as it would recede as soon as I removed the instru-

ment. There was not the least particle of vision. He could not distinguish the movements of my hand and fingers very near the eye.

The general health of my patient continued favorable under a tonic treatment; therefore I determined to pursue the local treatment already adopted, namely, the daily application every three or four hours of the sulphate of atropia—gr. ij to the ʒj—and to apply once a day the solution of nitrate of silver, together with the pressure-bandage. This conservative treatment, I am aware, is somewhat contrary to that recommended by some writers upon ophthalmic surgery; still, I did not deem it advisable or judicious to resort to any surgical interference at this stage.

In the course of a week or ten days, it was necessary for my patient to return to his home, and as the inflammation had sufficiently subsided for him to do so, and he could pursue the treatment without my daily visits, I gave my consent to his going home on a visit, under the promise that he would keep me posted regarding any changes that might occur in the condition of his eye. He carried out my directions diligently, and the only change I now made in the treatment was the discontinuance of the application of the nitrate of silver.

Some time after his return home, he wrote me that he thought the "bulging in his eye" was gradually diminishing in size, and his eye ball was becoming "rounder in front," and he thought there was an improvement in his vision. I confess I felt somewhat encouraged from such reports, and wrote him advising him to continue regularly the application of the atropia, three or four times daily, which I regarded at this time as the "sheet anchor" in the treatment of this case.

The fact that the eye became "round in front" was an indication of the re-accumulation of the aqueous humor in the anterior chamber, and the diminution in the size of the "bulging" indicated that the iris was receding—the aqueous accumulation thrusting it to its normal position.

I continued to receive favorable reports of the improvement in his vision until he returned to Lynchburg for the purpose of my making an examination, and changing the treatment if it should be deemed necessary. Much to my surprise, I found a wonderful improvement in the condition of his eye. The iris

had almost entirely resumed its normal position, with the exception of a protrusion—a *myocephalon*, if I may so call it—not larger than a small pin head, in the lower border of the cornea. The hyperæmia of the sclerotica had disappeared, and his pupil, while dilated, presented a clear, healthy appearance; the distension was so slight that it was hardly perceptible under the ophthalmoscopic examination which was made in the presence of my friend, Dr. T. L. Walker, who was equally surprised at the result. His vision had become so far restored that he could recognize distinctly, as he said, the horizontal bars of a window sash some forty yards from my office window. There was a slight opaque condition of the posterior layer of the cornea around the base of the protrusion which then existed. In order to prevent the formation of any extensive anterior synechia, which is of the greatest importance to guard against in such cases, I directed that the application of the atropia be continued, hoping thereby to break up any adhesions that might have formed, and, if possible, to prevent any opaque cicatrix from remaining on the cornea. The pressure-bandage was also continued, and the patient put upon the iodide of potassium, with a view of promoting absorption. He has returned to his home, and writes that his vision is still improving, and that the “bulging” continues to get smaller. General health excellent.

I have thus, gentlemen, given you a full, detailed report of what I regard as a very interesting case—interesting on account of the malignancy and virulence of the attack, and its favorable termination; and with a few observations I will close this already too lengthy paper.

It will be observed that in the treatment of this case in all its phases I have relied chiefly upon mydriatics and the continued application of the compress bandage, especially after the prolapse of the iris had been developed. Stellwag says: “If the ulceration be extensive, and a large perforation is to be feared, mydriatics are always to be used. Of course, we can rarely remove the pupillary margin from the vicinity of the future perforation. Mydriatics are useful from the fact, that if the pupil is widely dilated when the prolapse occurs, a relatively smaller part of its extent becomes engaged in the opening than when

the pupil is contracted, and the resulting corneal cicatrix is less apt to impair vision."

My chief reliance has been the sulphate of atropia; in fact, it has been the *sine qua non* in the treatment of this case, and I know, indeed, of no remedial agent which directly places an inflamed structure in a more favorable condition for recovery than atropia does in inflammation of the eye. It enables us to secure rest for the inflamed eye; it lessens the calibre of its congested vessels, and it prevents the injurious adhesions which would follow—more especially when the iris is involved—by keeping the iris well away from the lens; and lastly, to quote MacNamara, "by lessening the vascular supply and diminishing the amount of the secreting surface of the iris, it controls the secretion of the aqueous humor, and in this way lessens the intra-ocular pressure."

The action of atropia appears to be two-fold. It produces dilatation of the pupil, partly by paralyzing the sphincter pupillæ, which is supplied by the third nerve, and partly by exciting the radiating fibres of the iris, which are supplied by the sympathetic. Under its action the front of the eye seems all pupil.

With my experience in the use of atropia in the treatment of eye cases, I heartily concur with my friend, Dr. Chisolm, of Baltimore, who is justly recognized as one of the most eminent ophthalmic surgeons in this country. In an interesting and valuable article of his published in the May number of the *Virginia Medical Monthly*, on "The Value of Atropia in Eye Diseases," to which I call your attention, he says: "One can hardly go wrong should he use atropia in any case of acute inflammation of the eye ball. Should a physician have the necessary knowledge for the accurate diagnosis of eye affections, he would discriminate so as to avoid its use in most of the affections that are purely conjunctival—such as ordinary catarrhal ophthalmias, accompanied by a hyper-secretion of mucus and a sticking of the lids during sleep. On the contrary, in all cases of corneal inflammation, especially those characterized by much watering of the eye, with pain upon exposure to light, the oculist would use atropia largely as a local sedative or anodyne."

Another important feature in the treatment of this case was the regular systematic application of the protective-pressure-bandage—its object being to keep the eyelids closed and immovable as much as possible, giving a support to the front of the eye, where there is threatened perforation, prolapse of iris, staphyloma from ulceration, or wound of the cornea. This I regard as a most essential adjunct in the treatment of this case, together with a nutritious diet, and tonics internally.

My patient continues to improve, and notwithstanding the extensive lesions that have been produced in the *cornea* by the progress of the disease, there is no reason why I should not regard it as a complete recovery in every respect, and he will in a short time be in a condition to resume his vocation—that of a job printer—without detriment to his eye, although I have advised him against using his vision for type-setting for several months yet.

I should be pleased to hear an expression of the views and experience of the gentlemen present on the treatment of this disease.

P. S. *Feb. 4.*—Since I sent above report, the patient has been to Lynchburg, and I have called in several of my professional friends to examine his eye. He is continuing to improve—his vision has greatly improved since I wrote my article. The prolapsus has almost entirely disappeared, but there is some *leucoma* of the lower border of the cornea, showing the destruction of the cornea that was produced by the ulceration. I hope, however, that this will diminish under treatment. In searching my ophthalmological literature, I have not met with a case more interesting than this one—certainly none where there was a more favorable termination.

ART. IV.—*The Force and Influence of Habit.* By R. W. EARECKSON, M. D., Baltimore, Md. (Read before the Medical and Surgical Society of Baltimore, Feb. 4, 1875.)

Habit is undoubtedly designed to facilitate the numerous and complicated operations of the animal system. Without it, man would be limited in all his faculties, whether of body or mind; indeed, deprived of its agency and influence, he could never have passed from the condition of infancy to that of manhood.

The disposition to action that arises in consequence of the influence of habit, commences and continues, from the first act to the establishment of the most confirmed habit. Such is the mobility of our mental organs, that they are much more speedily brought under its control than the organs of the body; hence we find that fewer repetitions are required for the formation of intellectual than of corporeal habits. A single impression made upon the mind, especially if attended with a sensation of pleasure, will have a stronger tendency to a repetition of the same act, than a multiplicity of impressions made upon less susceptible parts.

The active nature of habit is very strongly shown by the fact that we may habituate ourselves to awaken out of the deepest sleep, at any hour we may think proper to fix upon; and such is its influence upon these occasions that, though deprived of rest the previous night, we invariably awake at or near the appointed time. Nurses, as you all have observed, from their long attendance in protracted cases of disease, will become so much the creatures of habit as to awaken regularly at the time of giving the medicine prescribed to a patient, if that should be every second or third hour through the night; while during the intervals they sleep as soundly as though their rest had not been disturbed.

The awkward gestures and pronunciations into which children fall, from associating with improper company, furnish a familiar proof of the same thing; and in order to divest themselves of these clownish manners, it is not sufficient that they should, when arrived at years of discretion, merely to form resolutions to that purpose, but they must be particularly careful in resisting the impulse of habit until they have finally succeeded in overcoming its tendency by the substitution of a different and more correct train of movements.

It is owing to the control of habit over the manners of men that persons who have been raised in the lower circles of society, if afterwards raised to affluence and rank, seldom, if ever, acquire that easy and polished mein of genteel life, and that the national habits or characters of individuals grown to manhood before leaving their native country are generally retained through life.

Were this the place or occasion, I might say much, morally, upon the great difficulty of eradicating evil habits. The experience of all ages, as well as examples of daily occurrence, convince us that this is frequently not to be accomplished by men of the most resolute determination; even after a person has become disgusted with what is evil, in consequence of having undergone that change of heart which it is the high, the holy and exclusive prerogative of the religion of Jesus Christ to impart, he is frequently carried away against his will by the force of former habits to be guilty of that which he so much abhors and dislikes.

In matters of taste, the influence of habit is no less controlling and arbitrary. By an original power of the mind, we are enabled to discern and admire those qualities that are beautiful and pleasant, and, on the other hand, disapprove of such as are ugly and defective in the various objects which we contemplate. But even in these respects, how frequently do we see the decisions of Nature overruled, and the faculty of taste dethroned by the force of habit. In relation to beauty of various forms, either natural or artificial, its influence over the tastes of different nations is absolute in the extreme. The fair complexion, the form of feature and person which we so much admire in the human figure, are the reverse of what is esteemed most beautiful among some of the tribes of Africa. In China, a lady whose feet are so large as to enable her to walk upon them, is considered an object of deformity. Our judgment in relation to the forms and fashions of dress is also entirely under the control of habit. A suit of clothes made after a particular manner, which, when in fashion, was esteemed highly beautiful, during the prevalence of a different mode, has been considered no less awkward and ridiculous. A coat or dress which is cut to correspond to the natural shape and proportions of the human figure, with due regard to utility and ease, is certainly in accordance with a just taste; but every possible deviation from this natural standard has at different times been fashionable, and when so, however absurd, is esteemed above all others the most becoming and graceful.

The active effects of habit are nowhere more strongly manifested than in the successive or simultaneous contractions of

many of the voluntary muscles, which have become united in their motions in consequence of having repeatedly acted together. In these muscular associations, if an impulse of the will be imparted, a series of movements are run through without a renewal of that impulse, which, previous to the training of these muscles, was necessary to every separate act through which they passed. Thus, in our first attempts to write words consisting of two or more characters, we separate them into their component parts of letters; but by habit our hand becomes so adroit in handling the pen as to form the words by one continued motion, without the intervention of any deliberation, sensation or volition between the several acts of the fingers. In this way, many of the separate motions of our muscles, and even the individual fibres of each particular muscle, become so connected as to act either synchronously or successively, agreeably to the habits that have previously been acquired.

But the force of habit in some instances is so cogent as to bring into action the voluntary muscles in direct opposition to the will. If, for example, we flex all the joints of our fingers and raise one finger after the other, it will be found that the ring finger cannot be extended without disturbing the rest; evidently from the difficulty of detaching the action of that portion of the extensor-communis-digitorum from that of the remainder of the muscle. Yet, to the practised musician the command of the will over all the fingers becomes nearly alike; and it can scarcely be doubted that, in many cases, some change probably takes place in the structure of the muscle which favors the isolated operation of its several divisions.

The muscles which are concerned in the act of winking, when a blow is aimed at the eye, will also contract in opposition to the most determined resolution, even though the person who is the subject of the experiment is perfectly satisfied that he will receive no injury. The cause that excites the contractions of the palpebra muscles in such a case is the sensation arising from apprehension of danger, which accompanies the impulsion of foreign bodies against the eye. This sensation, however, unless it had been previously connected with the act of winking, would as readily have produced a closure of the lips as of the eyelids.

It perhaps may be said that the contractions of the palpebræ

under such circumstances are caused by instinct; but that they are not prompted by this agent, any one may satisfy himself by making experiments on infants, who will never wink when a finger is suddenly darted at their eyes until they have learned that these organs may be injured by the impulse of foreign bodies against them. I have frequently made these experiments upon young infants, and always with the same result. We might, therefore, as well say that a child, after having once burnt its finger, will, from instinct, avoid the flame of a candle, as to suppose that it will contract its eyelids from the same blind impulse.

The influence of habit over the functions of the various organs of life is also very striking. For instance, that condition of the stomach upon which our appetite for food depends returns regularly, and at stated hours, according to the established rules of custom. That this is not owing to the presence of any particular irritation is evident from its wearing off if it does not receive its accustomed indulgence, and again returning about the period of our next meal-time. Upon the same principle, the man who has habituated himself to take his bitters every day before dinner feels at the usual time, and no other, a return of that desire which he has created by such a practice.

It is a general rule with regard to all sensations that their intensity is much affected by habit—being greatly diminished by frequent and continued repetition. This is probably due to the different degree of attention which the sensations excite in the mind; but there are many facts which lead to the conclusion that it is chiefly to be attributed to a change in the degree in which, after frequent repetitions, they impress the consciousness itself. Thus, most persons are readily awakened from a sound sleep by a trifling noise, if the sound be of a kind which they are unaccustomed to hear, but after a few repetitions the sound loses its effect, unless its intensity be increased. Of this every one has had experience who has occasionally made use of an alarm-clock to arouse him for a few mornings in succession. “Those who are exposed to very loud noises become unconscious of them, and are even undisturbed by them in illness. This fact is very well known in the manufacturing districts, where whole families live in the immediate vicinity of a large

forge hammer; and those who are accustomed to the noise are unable to sleep anywhere else."

"It is curious, also, that the feelings of pain or pleasure which unaccustomed sensations excite are often exchanged for each other when the system is habituated to them. This is especially the case in regard to impressions communicated through the organs of smell and taste.

"There are many articles in common use among mankind, such as tobacco, fermented liquors, &c., and also many articles of diet, the use of which at first is extremely unpleasant to most persons, and yet they first become tolerable, then agreeable, and at last, the want of them is felt as a painful privation, and, in the case of liquors, the stimulus must be applied in an increasing degree in order to produce the usual effect. All medical students well know that even the effluvia of a dissecting room are not noticed when the organ of smell is habituated to them; although an intermission of sufficient length would occasion a removal of the first unpleasant feelings when the individual is subjected to the impression."

Every physician knows that the habitual use of medicinal or poisonous agents, especially narcotics, diminish the influence which they ordinarily possess over the body. Of the truth of this statement we have almost daily proofs in those who are confirmed drunkards, chewers and smokers of tobacco, and opium-eaters. In Morewood's *History of Inebriating Liquors and Effects of Opium-eating* many interesting cases are related of persons who gradually acquired the habit of using opium, until as much as six drachms were consumed daily; he heard of one person who took two ounces in a day—a quantity not exceeded, perhaps, in the whole history of man. Taylor, in his work on *Poisons*, also mentions many cases where the habit of taking large quantities of opium had been acquired, but none, I believe, equal to those just named. Pareira, in his *Materia Medica*, mentions the case of a woman who, in consequence of a terrible injury, causing excruciating pain, resorted to the use of opium, the doses of which gradually increased to over two hundred grains daily. I am at this time well acquainted with a young married lady who has, during the last five years been afflicted with neuralgia of a most distressing and painful character. Her

husband, who is a physician, told me a short time ago that he was then giving her, hypodermically, thirty grains of morphia daily.

The control of habit over the rectum and bladder is no less strongly marked. If we get into the practice of evacuating either of these organs at stated hours, their contractile action will afterwards be excited by habit at such particular times, though the bulk of their contents may not be such as to produce the least uneasiness. Its influence over the functions of the bowels in particular is so well known that it has been turned to the best practical purposes, in the removal of habitual constipation when all other means resorted to with that view had failed.

Now, if the system in health affords us proof of such controlling energy of habit, its effects in this respect are also observable in certain morbid conditions of the "animal machine."

In some cases of spasmodic or convulsive diseases, the irregular action is long continued after the morbid causes which first produced them have ceased to operate. Examples of this we not unfrequently see in epilepsy, chorea, and other spasmodic affections, the continuance or periodic occurrence of which is evidently owing to the force of habit, or takes place in consequence of the nerves and muscles having before repeatedly performed the same movements under the guidance of some irritating cause that has afterwards been withdrawn. The simulated epilepsy, which has so often attracted the attention of the medical profession, although at first entirely feigned, becomes by repetition involuntary and uncontrollable, and as much a real disease as if it had been brought on by the more ordinary causes of that trouble.

In the deranged condition of the uterus, which is followed by abortion, we are furnished with further testimony in corroboration of the effects of habit; for among the various causes which bring on miscarriage, it is most assuredly to be enumerated.

"The periodical return of the paroxysms of an intermittent fever has doubtless been kept up during whole months in succession by the force of habit alone; for in these cases we cannot reasonably suppose that the miasmata or other agents which had been concerned in producing them, continued to operate."

A case given by Dr. Watson, in his work on *Practice*, of an

experiment performed by Brachet (upon himself) very strikingly shows the influence of habit in continuing these periodical returns. Towards the end of October, 1822, Brachet took a cold bath at midnight for several nights in succession, in the river Saone. On the first occasion he remained in the river a quarter of an hour; on the second, half an hour; till at length he was able to stay in the water a full hour at a time. After each bath, he betook himself to a warm bed, and in a short time became affected with considerable heat, followed by a copious perspiration, after which he fell asleep. At the end of the seven days, Brachet ceased to repeat this experiment; but what was his surprise at finding, on the following nights, between twelve and one o'clock, that all the phenomena of a true ague fit appeared in due order and succession. As, however, this artificial paroxysm was not very severe, Brachet determined not to interfere with it, but to observe the result. It recurred six times with great regularity; on the seventh night (after he had omitted the baths) he was summoned about midnight to a woman in labor; the ride to her house heated him, and on his arrival, he kept up the heat by a large fire, and from that time the febrile phenomena ceased to occur. This and many other illustrations given by this great author, go to corroborate the fact that the continuance of the paroxysms of intermittent fever is often kept up solely by habit.

In short, it is well known to every physician that when a diseased action is once produced from the operation of any agent whatever, the impression of which has been continued for a certain length of time, the system acquires from habit the power of maintaining the action, even after the removal of the cause.

The correct and physiological method of treating all such diseases, consists in overcoming the force of morbid habit, by substituting a different and more powerful impression. For this purpose we have recourse to both mental and corporeal remedies; or to such means as will entirely change the previous habits of the patient.

It has already been stated as a general fact that all parts of the body, which have frequently been made to act together, either in combined or successive trains, become so connected by the mysterious influence of habit that when one of the associated

tribe is excited into action, that of the rest will instantly succeed or accompany it. It is upon this principle that the numerous muscles which have been taught to move together in learning the art of dancing and music, or in acquiring the different feats of rope-dancing, gymnastic feats and tricks of legerdemain, become so linked in their movements as to act, in some measure, automatically, or without requiring that continued effort of the will and attention which was necessary previous to the establishment of their combined movements. Another singular effect of habit is displayed by the ventriloquist, who acquires such power in modulating his voice, and has such control over the muscles of his throat that he can imitate sounds at any distance, or in any situation, so as to appear natural. He evidently does this by acquiring complete control over the muscles of the throat, and any person, it is said, may acquire the power gradually, by imitating a cow lowing or a dog barking at a distance. Ventriloquism is one of the most singular effects of habit, and goes to show what astonishing power may be acquired over the muscles.

Habit is nothing more or less, after all, than the accustoming one self or any part of the body to a certain routine of action or conduct. In circus performers we see the effects of habit in giving control over all the muscles of the body. It seems almost impossible for a man to stand on the ground, and, without touching anything with his hands, throw a complete somersault, pitching on the same spot where he stood; but it is performed apparently without effort. The same habit which enables performers to do it, enables a child to walk by fixing the body over the centre of gravity. The same habit teaches the eye to see objects upright, instead of in an inverted position, as the image appears on the retina.

The muscles which are concerned in the articulation of language are so much under the control of the same principle that, without its active co-operation, it would be utterly impossible for children to learn the art of speaking. The difficulty with which they are taught their vernacular tongue is universally acknowledged. It is not until after repeated attempts that their muscles are brought to act in that uniform and harmonious manner which is essential to speech. The more these are exercised, with so

much greater facility are they called into action. Hence, men who, from their habits, have but little to say, express themselves with awkwardness and difficulty. Hence, too, the greater advantage of the orator in point of fluency over the man unaccustomed to public speaking. It was owing to the unwearied assiduity with which Demosthenes exercised his muscles in overcoming the stammerings of his voice, that he was enabled to rise to the highest eminence as a public speaker in the popular assemblies of Greece.

The influence of habit is not confined to the operations of the body, but it also holds an extensive dominion over the intellectual character of man. Its agency over the mind is astonishingly displayed in the most simple expressions of our thoughts in conversation. The connection of those arbitrary sounds which constitute language with our ideas, their relation in point of grammatical construction, and their various combinations in a series of logical propositions, all go to show the extent of the influence of habit over mental action. Were it not that these acts have grown so familiar to us, they would excite our wonder and admiration as much as the feats of rope-dancing or tricks of legerdemain.

The power of habit is manifested in the association of ideas; in that command which we acquire over our thoughts, including the exercise of judgment, memory and imagination, is as essential to our different intellectual operations as it is to the perfection of our muscular actions. Without it, the mind could no more have embraced the different species of science than our voluntary organs (destitute of the same energy) could have been trained to the exercise of the lowest mechanical arts. In short, I believe there is not a quality or function, either mental or corporeal, which does not yield to this great law of our nature.

There are not only habits of drunkenness, swearing, lying, &c., but of every modification of action, speech and thought. There are habits of industry, of idleness, and vanity, of self-conceit, melancholy, partiality, fretfulness and suspicion, "making man truly a bundle of habits."

A knowledge of these facts at once unfolds to us the importance of our subject in relation to morals. They point out the necessity of an education that will give a prominent establish-

ment to those habits of thought and action which will be most conducive to the happiness of man and the welfare of society.

In youth, both mental and corporeal customs are more easily acquired than in the middle or advanced stages of life. The flexibility of their bodily organs, the docility of their minds, as well as their greater freedom from vicious habits, is, at this period of life, most favorable to the reception of a correct education. It is, therefore, a matter of the greatest importance that the minds of our children should be constantly habituated to such impressions as are best calculated to excite religious and moral trains of thought. It was no doubt an intimate acquaintance with the laws of habit that first suggested to Solomon that familiar but not the less wise admonition, "Train up a child in the way he should go, and when he is old he will not depart from it."

Habit has a wonderful influence over human beings in every respect. Bad habits should be carefully avoided; for when once contracted, it is a difficult matter to shake them off; for, as before observed, habit is so much like Nature that, in many respects, it is difficult to distinguish one from the other.

Men of the greatest minds that ever illuminated the benighted nations around them, have been overwhelmed by habit. Hence, the celebrated Dr. Johnson said that "he who overcomes one powerful habit deserves more credit than the General who achieves the greatest victory in the field, inasmuch as it is easier to overcome others than to govern ourselves." This observation finds illustration in the character of Alexander the Great, who has been aptly styled the mad Macedonian. He who carried Kings captive at his will, and saw nations kneeling before him—he, in whose grasp crowns crumbled, and at whose approach thrones tottered—he, who made himself master of the world, and arrogated to himself the title of the "Son of Jupiter Ammon," could not govern himself, but died in a fit of debauch at the early age of thirty-two, after having slain in his drunkenness one of his bravest generals.

That Great and wonderful Being who guides and governs the universe, foresaw that it would be necessary that man should be governed by habit, and accordingly placed those bars around him, which he, alas! too often turns to his own destruction. But

thus it is with the greatest blessing in life, which, when improperly used, becomes the greatest curse. The very habit of eating, which is intended to sustain life, is often made to destroy it by that desire of excess which is inherent in man. If he had cultivated those habits alone which tend to his good, he would have lived in health and died in old age; but, on the contrary, man has truly sought out many inventions for his own destruction.

Clinical Reports.

A Case of Chylous Urine. By S. W. DICKINSON, M. D.,
Louisa Co., Va.

March 27th, 1874—I was called to see Jessy Johnson, colored, æt. 60, farm hand by occupation, suffering with orchitis. While attending him for this, he showed me some urine, and gave the following history of his case:

In September, 1873, he first noticed that his urine was "wrong." Then it would be clear occasionally, but soon it was chylous all the time. Patient's appetite was good all the while, but he thought he had fallen off some. Had not been obliged to stop work until his present disease commenced. Patient urinated oftener than in health, and sometimes had a smarting sensation when urinating. Had to strain when urinating, owing to clots of urine in the urethra. Urine was not always of the same color, being now and then of a flesh color. Dieting had but little effect on the character of urine.

When I saw the case, urine was white when passed; as it cooled, it became thicker, like clabber, or, as Watson says, like "blanc mange," and took the shape of the vessel containing it. When thrown out, it broke into clots. When allowed to stand, it had a layer of fatty matter on top.

Treatment was commenced March 26th, and consisted of nitro-muriatic acid; dose three drops, to be gradually increased to six, and be taken three times daily. This had a beneficial effect; but causing diarrhœa, it was discontinued. I then substituted muriatic acid, 15 gtts four times daily, which had an excellent effect, and after using it for two weeks, patient consid-

ered himself well. He had no return of chylous urine for two months. About this time, he had diarrhœa, when it returned. Finding him debilitated from the diarrhœa, I next prescribed—

R. Tinct. ferri. mur..... ʒi
Acidi muriatici..... ʒxi

M. S: Dose gtt. 15 four times daily.

While taking this, he improved again, but, despairing of being ultimately cured, he discontinued his visits to me.

I advised him to continue using tinct. ferri mur.; and while he followed my directions, he urinated with more ease, as the urine did not commence coagulating in the bladder.

I did not see him again. He died in November last without medical attention, and I have not been able to learn satisfactorily the cause of his death.

In the treatment of this case, did not the muriatic acid supply a deficiency in the digestive fluids, and thus, by aiding in digesting the food, cause the chyle to be raised to the blood standard? As an evidence of this, the muriatic acid was more efficient than the nitro-muriatic; it was given in larger doses, and hence supplied more acid to the stomach.

Traumatic Tetanus Successfully Treated by Chloral-hydrate and Potassium-bromide. W. E. PITMAN, M. D., Lynchburg, Va.

Dec. 12, 1874.—Mary M——, æt. about 5 years. Tetanic spasms came on so suddenly and severely as to throw her from her chair. She had violent spasms before I saw her. The jaws were clinched, and there was marked tendency to opisthotonos; some dysphagia, though she could be made to swallow. I gave during the first day potassium-bromide, gr. xij, with chloral-hydrate gr. v every two hours, gradually lengthening the intervals until the spasmodic movements ceased. The child has entirely recovered.

The Medical Properties of Ergot, according to Prof. Levi, Univ. Pisa, are due to phosphoric acid, which it contains in abundance.

Correspondence.

The Lancet in Puerperal Eclampsia.

Mr. Editor,—The importance of the disease under consideration calls for and demands all the information which experience can bring to bear upon it. As there seems to be some doubt and uncertainty in regard to the use of the lancet in such cases, for one, I must say these are the only cases for which I always carry a lancet, and never fail to use it when an occasion offers. Such has been my practice for twenty years, and I am clearly convinced of its correctness.

I do not pretend to say that blood letting is absolutely necessary in every case, but its effect in relieving the brain, already surcharged with rich and stimulating blood, is more prompt, speedy and powerful than any other means at our command; and then it safely opens the way for the quieting treatment which is to follow. I will admit, in cases of convulsions originating from other causes, I have not found it necessary to bleed; but in these cases, the pregnant condition of the woman must always be taken into consideration. After bleeding, it was once my plan to give calomel, Dover's powder and camphor, of each gr. v, every three or four hours until the bowels were moved, and it proved to be good treatment; but of late years I have used chloral-hydrate and potassium-bromide with equal success.

As to chloroform, I have used it all the time. I remember attending a case of this kind, in whom extreme restlessness set in after the convulsions had been partially relieved, when chloroform was used with the happiest result. I know of no other remedy which would have had the desired effect in so speedy a manner. The convulsions in this case did recur, and were not permanently relieved until a blister was drawn over the nape of the neck.

I consider calomel in large doses, aided by enemata, of vast importance in opening the bowels.

R. W. I'ANSON.

Surry Co., Va., Jan., 1875.

\$165,000 worth of Sponges are said to have been collected on the Florida reef during the present season.

Proceedings of Societies.

[Communicated.]

PROCEEDINGS 69TH SESSION NEW YORK STATE MEDICAL SOCIETY.

My Dear Mr. Editor,—Sir Henry Holland was a man of whom something under the title of *Recreations of a Medical Man* might be written; but where, in this part of the globe, you will find a physician whose recreations are not strictly within the professional ways and byways, I cannot tell. Still, though professional, we have our recreations, and one has recently been afforded me in a trip to Albany, N. Y., to attend the annual meeting of the New York State Medical Society, to which I went as a delegate from the New York County Medical Society. It has occurred to me that you would like to know what New York is about in this eventful era, and especially what the metropolis is able to contribute to the brethren of the State at large in medical matters.

In point of weather, nothing could have been more satisfactory for this season of the year. The temperature was unexpectedly clement, and no storms save an occasional snow flurry, and one afternoon and evening of drizzle.

The New York City delegation was in full force. On the first and last days it was found agreeable for the medical gentlemen who travelled on those days to monopolize a drawing-room car. Thus it came about that we had undisturbed professional and social communion for about ten hours in addition to all that we enjoyed in Albany.

The exercises of the State meeting included a meeting for organization and six re-unions. The meeting for organization of the sixty-ninth annual session was held on the morning of Tuesday, Feb. 2d, in the chamber of the Common Council of the corporation of Albany. After prayer, offered by the Rev. Mr. Bartlett, Dr. Geo. J. Fisher, of Sing Sing, read the President's welcome to the Society, and such views and suggestions as are usually presented in an inaugural address. He lamented the general prosperity of special medical journalism, which operated to the disadvantage of the journals devoted to general medical subjects, as the latter are vastly more useful to the profession at large than so much highly wrought and profound special medical literature. He deprecated the slaternly appearance of the published Transactions of the Society, and offered some suggestions that might remedy that fault. Besides the address at the opening of the Convention, it is usual for the President to deliver one in the Assembly Chamber of the State Capitol to the

profession and the public. Dr. Fisher seemed to think that that was an exaction from the President that might wisely be modified by omitting the public oration. He regretted that he could not speak at some length upon the subject of systematic drainage and other means of warding off pestilential diseases. He paid a respectful tribute to the memory of several of the late ex-Presidents and members of the Society. From 1807 to 1851 inclusive, death has taken every ex-President. President Fisher spoke of the new registry laws of the State, which were unprotective and unsatisfactory, in consequence of not being properly executed, though the laws themselves were not well framed. He analyzed the English registry laws since 1858, and commended them as an admirable basis for similar laws in this land. "At the present time, the regular practitioners of medicine are reduced to the general level of a medical sect by legislative action. We have nothing to look forward to but individual energies. He recommended that some suitable person or persons be appointed by the Society to collect and codify the State laws in relation to medical matters. He alluded to the general agitation of the subject of change of time and place for holding the meetings of the State Society. Individually, he had no special preferences as to time or place. Dr. Fisher asked renewed efforts in behalf of the insane of the State. He gave some statistics of "Demonology," also, statistics relating to expenses incurred in the case of providing for the insane of the State. A subject of peculiar interest to a large portion of the Society has been that of membership. There are 60 counties in the State; of these 56 have medical societies, and have established representation in the State Medical Assembly on the basis adopted in the construction of the lower house of the State Legislature. The State Society is entitled to 147 delegates, though at present there are 141; these are sent for four years each. Two permanent members are elected yearly from the two Senatorial districts, according to a statute made in 1845. In 39 years there have been 339 permanent members made, which shows that the Society has fully availed itself of the statutory privileges. To remedy the discontent which this slow manner of reaching permanent membership occasions, the President recommended that every delegate who serves by actual attendance the full term (4 years) shall be elected a permanent member without delay. Such a service would, of course, make him eligible; but beyond that, if no disqualification exists, he shall certainly be elected. The President disputed the existing impression that there was danger of overcrowding the Society by membership. For instance, King's County has only nine permanent members, although entitled to

eleven. The President also made many useful suggestions for the better regulation of the order of the meeting. For instance, gentlemen having long papers should present by reading only an abstract, and many should be read only by title.

After the President's address, Dr. A. Jacobi, of New York, asked that a committee be appointed to consider the address and present, in a shape suitable for the action of the Society, the many important suggestions contained therein. The motion carried, and Dr. Jacobi was made chairman of the committee.

The next business in order was the appointment of the various committees for the management of the affairs of the session, such as the Committees on Credentials, Reception, Business, Ethics and Prizes.

Dr. St. John Roosa, of New York City, read a paper on *Hysterical Amblyopia*. Dr. Jacobi, of New York City, said that simulated and hysterical symptoms ought not to be confounded. Dr. Redin, of Rochester, made some remarks illustrative of Dr. Roosa's subject, and Dr. Squibb, of Brooklyn, alluded to some published cases of great interest in the department of imitated diseases. The discussion was continued by Dr. Thos. R. Pooley, of New York City.

The President read a communication from Governor Tilden, inviting the Association to a reception at the Executive Mansion on Wednesday evening, Feb. 3d, at 9½ o'clock. The invitation was accepted.

Dr. Edward Sequin, of New York City, introduced to the notice of the Society the new *thermoscope*, a delicate glass instrument of extreme susceptibility, which will mark, by adjustable scale, the slightest grades of animal temperature.

Dr. Hyde, of Cortlandt Village, read a brief paper on *Strangulated Hernia*, and advocated a heroic and prompt reduction by the knife. Dr. Squibb spoke of the recent experiments in the use of conium in the reduction of hernia.

A committee was appointed to invite the Governor and members of the State Legislature to attend the meetings of the Society.

Several papers were "read by title," and many delegates from other State and County Societies were introduced, after which the first session terminated.

In the afternoon, the following names of gentlemen were announced, who were to constitute the Nominating Committee:

For the 1st District, T. Addis Emmet; 2d, J. Foster Jenkins; 3d, S. O. Vanderpoel; 4th, Thos. Burton; 5th, Alonzo Churchill; 6th, W. C. Wade; 7th, F. Hyde; 8th, E. W. Moore.

Dr. T. R. Pooley, of New York, read a paper on *Foreign*

Bodies in the Eye. Drs. Vedder, Agnew, Roosa and Chapman addressed the Society on the subject of this paper.

After the report of the Treasurer was read and disposed of, Dr. Quackenbos, of Albany, presented some cases of "*Serocystic Sub-peritoneal Tumors.*" Remarks were made in further elucidation of the physiology and pathology of these cases by Dr. A. Jacobi.

Dr. T. A. Emmet presented a paper on *Fibrous Tumors of the Uterus.*

Dr. Squibb furnished some important notes on *salicylic acid as an anti-ferment and disinfectant.*

A letter regretting absence was received and read from the venerable Dr. Hiram Corliss, of Greenwich. The Society, by resolution, requested the President to telegraph to Dr. Corliss their friendly regards and the sympathy of the members present.

Several important papers were read by title and referred to the Publishing Committee with power.

Before adjournment, several gentlemen were introduced as visiting delegates.

The evening session was entirely informal—no business intruding upon the programme. Dr. John P. May, of Utica, read a paper on the *Lesions which have thus far been Observed in Insanity.* The subject was richly and very abundantly illustrated with magnified microscopical preparations thrown by the lantern upon the screen. The exposition was excellent in every respect and was awarded a hearty and unanimous vote of thanks.

Following this was a lecture by Dr. Lewis Elsberg, of New York city, on the *Science of Sound, and its Relations to Human Vocal Phonation.* This lecture was well illustrated by appropriate apparatus—the experiments being made after those devised by Helmholtz. Dr. Moore felt impelled to make some remarks highly laudatory of the lecture and the successful mechanical demonstrations, after which a vote of thanks was called for and given with great good will.

On the morning of February 3d, the meeting was formally reopened by prayer, reading of the Secretary's minutes, &c.

Dr. Squibb presented a report of the Board of Censors for the Southern District. The report was accepted.

Prof. John C. Dalton addressed the Society in relation to *Physiological Experiments upon Animals*, and presented a resolution re-affirming the action of the Society in this matter in 1867. The resolution was unanimously adopted.

Dr. J. F. Kendall, of Onondaga, desired that a committee be appointed to invite the Senate and Assembly to be present at the afternoon re-union to hear Dr. A. N. Bell, of Brooklyn,

read his report on *Drainage Systems in Different parts of the State*. This desire was embodied in a resolution and carried.

Mrs. Mary Putnam Jacobi, M. D., a delegate this year from the New York County Medical Society, read an elaborate and very superior paper entitled *Some Remarks concerning the Effects of Nitrate of Silver on Epithelial and Gland Cells*. Dr. Henry D. Noyes made a few statements suggested by Mrs. Dr. Jacobi's paper. Those who were interested in the microscopical demonstration of the lady's topic had an opportunity to examine some appropriate specimens for themselves.

Dr. Rochester, of Buffalo, Chairman of the Prize Essay Committee, reported that there had been two competitive papers. The successful essayist was Dr. Alexander Hutchins, of Brooklyn, N. Y. Subject: *School Hygiene in Reference to the Physiological Relations of Age and Sex to Mental and Physical Education*.

Dr. Adams, of New York, reported in relation to the agitation upon the subject of experiments upon living animals, that he had authority for saying that Mr. Bergh, President of the "Society for the Prevention of Cruelty to Animals," had no intention of petitioning the Legislature concerning the matter. Mr. Bergh intends simply to fight the teachers of physiology in the newspapers. Dr. S. O. Vanderpoel made some pertinent remarks upon the subject, intended to show that such action as this Society is disposed to take will neither be untimely nor superfluous.

Dr. Marion Sims read a paper on *Utero-Gastrotomy* and the general subject of removal of uterine fibroids. Dr. Moore replied to this paper.

Dr. Sims exhibited a new method of heating actual cautery irons, invented by Darrow, a New York City surgical instrument-maker. It is on the principle of a blow-pipe, the blast being supplied by a stream of steam (the vapor of alcohol). An exciting episode was afforded by the lamp getting the better of the demonstrator. It heated so rapidly, and the flame was so much in excess of the expected yield, that the Vice-President vacated his seat to get at a safer distance. The gentlemen in the vicinity began to retire, Dr. Sims began to remove his coat to serve as an extinguisher, and something of consternation was rapidly brewing, when our ready-minded Dr. Squibb ran up to the desk, dipped his handkerchief in the water pitcher standing close by, and skilfully threw it over the little volcano, which had the effect of instantly quenching the flame. Dr. Squibb proved himself for another time master of the situation. Dr. Squibb was warmly congratulated, and he took the occasion to explain wherein lay the defect of the apparatus.

Dr. Peaslee, of New York, responded to the views suggested by Dr. Sims paper on Utero-Gastrotomy. He thought that the profession would get a wrong impression of the views of this Society if certain points, that he felt called upon to present, were overlooked in the consideration of the subject.

Dr. Newman, of New York, made a statement in regard to his experience in the use of galvano-cauterization, though he did not oppose actual cautery in the solution of attachment at the pedicle of tumors to be removed.

Dr. C. R. Agnew, of New York, read a paper on *Certain Diseases of the Eye, and their Treatment by Canthoplasty*.

Dr. Geo. T. Stevens, of Albany, gave the history of a case of *Intra-ocular Sarcoma*, and extirpation of the organ. This case was commented on very pleasantly and profitably by the oculists and pathologists present.

Dr. A. Jacobi, Chairman of the Committee to embody the suggestions contained in the President's address in resolutions for the action of the Society, announced his readiness to report. The report was accepted.

With regard to the question of permanent membership, the subject was, by vote, recommitted to a new committee of three, to report at the next annual meeting.

Dr. Elsworth Eliot, of New York, desired the Committee on By-Laws to be instructed to engage the services of Dr. John Ordronaux, as a committee of one to undertake the codification of the medical laws of the State of New York. This desire was sanctioned by a resolution to that effect, carried by a unanimous vote.

Dr. L. D. Bulkley read a brief paper on *Functional Derangement of the Digestive Organs, as Manifested by Alterations in the Character of Urine*.

Several papers were read by title, and several visiting delegates were introduced by the Business Committee.

The President did not preside over the afternoon session of the 3d inst.—Vice President, Dr. H. Jewett, performing the duties of presiding officer.

The committee appointed to invite the Senate and Assembly reported that they had performed the duty assigned them. Report was accepted, and the committee discharged.

Dr. Henry D. Noyes read a paper on *Uncommon Affections of the Cavity of the Orbit of the Eye*. Thrombus, abscess, &c., in the orbital cavity were the conditions especially mentioned in this connection.

Dr. A. N. Bell, of Brooklyn, read an abstract of a consolidated report derived from several sanitary reports received from

a considerable number of County Medical Societies of the Staté.

Dr. A. M. Vedder, of Schenectady, reported a *Case of Diphtheria in which Tracheotomy was Performed and Recovery Resulted*; also, a case of *Embolism in the Axillary Artery*. Dr. A. Jacobi advocated the operation of tracheotomy in cases of diphtheria where suffocation is imminent. Dr. Hutchison, of Brooklyn, also spoke strongly in favor of the operation.

Dr. F. N. Otis, of New York City, read a paper on *Stricture of the Male Urethra, and its Radical Curability*. Dr. Hutchison remarked that Professor Otis' statement "that urethral stricture is permanently curable," if proved, is one of the most important surgical facts developed in the present century.

The Secretary reminded the Society of the invitation of the Governor.

Dr. John W. S. Gouley, of New York City, presented the surgical history of a case of *Perityphlitic Abscess* [which we have the pleasure of presenting our readers in this number. ED.] Dr. Rochester, of Buffalo, reinforced the lessons of Dr. Gouley's case by cases and experiences of his own. Dr. Ernst Krackowizer, of New York City, gave a brief statement of like observations.

Dr. Kennedy made a brief address on the *Absence of the Ordinary Symptoms of Gall Stones when that Condition was present in Unusual Quantity*. He exhibited a bottle containing several ounces of "gall stones" taken from one individual. "They were faceted, and resembled peas, moulded by the compression of their own mass and numbers and boiled with salt pork"—to give the words of the gentleman making the exhibition.

Dr. Louis Elsberg, of New York City, explained the latest method of *Auscultation of the Œsophagus*, and how to detect morbid growths by sound in deglutition. Dr. Hutchison, of Brooklyn, mentioned a case in which the desirability of auscultation of the Œsophagus was well demonstrated.

Dr. Moore supplemented the history of some cases of *Colle's Fracture*, which he had reported to the Society a year or two ago.

In the evening, the Society and the public met in the chamber of the Legislative Assembly in the Capitol, and listened to an excellent address from President Fisher, being chiefly a historical sketch of the New York State Medical Society. I cannot even attempt to give a synopsis of this address, as it was so bountifully made up of statistics and stirring incidents of the olden time. It was an address fully up to the standard of ex-

cellence of addresses delivered before the State Medical Society by its presiding officers.

After the address, the Society adjourned to meet at the residence of Governor Tilden, to be there presented to members of the Governor's household, and be hospitably entertained. The evening was quite stormy, and slippery walking made it difficult to make the transit from the Capitol to the Executive Mansion. The supper was of the severely temperance order, but very luxurious in the supply of eatables. All retired well pleased, indeed, but longing to apply the traditional "night cap," which seemed a fitting sequel to our exhausting exercises of the day and evening. Addephagia marked the proceedings of the latter part of the evening on the part of some individuals.

The last re-union on the morning of February 4th, was opened with prayer, and reading of the Secretary's minutes as usual.

Dr. Haw, of Albany, read the report of the Committee on Ethics. The matters presented by the report were referred back to the Committee, with power to send for persons and papers.

The Auditing Committee reported the accounts of the Treasurer to have been found correct.

Dr. Squibb asked an explanation about funds appropriated for the purchase of a large number of copies of the "*Sanitarian*." Dr. Bailey, Secretary of the Society, gave the required explanation. The disbursement arose from certain specific action of the Committee on Publications made last year in reference to the report on quarantine hygiene, presented at the last annual meeting. Dr. Bell, the editor of the "*Sanitarian*," made further explanation, to the effect that it cost him (Dr. Bell) a little more than twice as much as he received from the Society to publish the report in question. The Publication Committee felt authorized to take the course they did.

Dr. Wm. H. Bailey's resignation as Secretary of the Society having been announced, a resolution of thanks was offered to Dr. Bailey for his long and faithful services. This resolution, on being put to vote, was unanimously carried.

Dr. Squibb mentioned the terms of a plan suggested by Dr. Haw, by which the proposed change of time for the meetings of the Society could be effected without a petition addressed to the Legislature. The President thought it would be well to present the petition, though advance action of the Legislature would not defeat the measure if the Society is resolved to change the time of meeting. A quorum of members (fifteen being a large enough number) can meet in February next, and after organizing can adjourn to meet in June or September.

The Committee on Nominations made their report as follows: Dr. Thomas F. Robertson, of Buffalo, President; Dr. Elsworth Eliot, of New York, Vice President; Dr. Edward Hlaw, of Albany, Cor. Secretary, and Dr. C. H. Porter, of Albany, for Treasurer. These officers were unanimously elected, as well as others to complete the roll of officers of the Society for the ensuing year.

[Drs. Lewis W. Oakley, N. J., Ezra M. Hunt, N. J., J. M. Da Costa, Philadelphia, and J. M. Toner, Washington, D. C., were elected Honorary members.]

The Committee on Prize Essays announced the subject for the next yearly competition for the Meritt H. Cash prize to be "Transfusion of Blood, Historically, Experimentally and Critically Considered." The subject for the "Hiram Corliss Prize" is left open to individual choice. In answer to the question, the committee replied that it was not prepared to say what was the exact pecuniary value of the prizes offered.

Dr. A. E. M. Purdy, of the Publication Committee, mentioned the time when all material to be introduced into the edition of the published transactions must be in his hands March 1st, 1875, as the latest date that such matter will be received.

Dr. Squibb offered a series of resolutions concerning the publication of the Society's transactions for 1875. The number of copies proposed was 1,800; Publication Committee to hold the copyright, and to award the printing to the parties making the best and cheapest offer. Some improvement to be made in the binding, and especially such a change as will hereafter distinguish it from the publications of the Legislature. Copies of the Transactions to be sent free to all members and visitors present at this meeting of the Society. Copies of the Transactions to be sent to all public medical libraries in the State and country. Papers not put into the hands of the Publishing Committee in a complete form within thirty days of the delivery of the paper to the Society, shall be laid aside and henceforth disregarded. Copies of the Transactions may be sold to the members of this Society, at the option of the Publishing Committee, at a cost of not more than fifteen per cent. or less than ten per cent. of the original cost, and at not more than twenty-five nor less than twenty per cent. to other purchasers. Those who have paid the higher price for the Transactions of last year (\$3) may have another copy of the same edition without further charge. These resolutions were all adopted, with no material modification.

Dr. Frank H. Hamilton made an address on the *Use of Hot Water* [from 98° to 110°] *in Surgery*. He said he desired to leave this system in surgical practice as a legacy to the profes-

sign. He illustrated his views by copious extracts from the volume of his extensive experience and observation. Dr. Squibb recalled his own experience and early suggestions, made to the profession while he was in the United States navy service, on the use of water in general surgery. Dr. Krackowizer made some remarks on the use of hot water in the treatment of wounds. Dr. Squibb spoke of the "Aromatic Wine," and made some suggestions concerning the "aromatic series" in connection with surgical treatment.

Dr. Abbott read a paper on the *Removal of the Breast by the Elastic Ligature*.

Dr. Sherman, of Ogdensburg, read a paper entitled *Dislocation of the Acromial Extremity of the Clavicle*." Dr. Moore, of Rochester, supplemented Dr. Sherman's presentation. Dr. Hamilton, of New York City, did the same, affirming the excellence of the principle embraced in Dr. Moore's appliance for fractures of the acromial end of the clavicle. Dr. Rochester, of Buffalo, contributed a case on the subject. Dr. Sherman added a few pertinent statements.

Dr. Squibb offered a resolution to request Dr. Hamilton to reduce his address to writing for publication in the Transactions of the Society. The resolution was put to vote and carried. A similar resolution was offered in relation to Dr. Dalton's remarks on vivisection. This also was carried.

Dr. Moore suggested that the delegates to the National Medical Association remain on duty until others are appointed. This will cover two meetings of the National Society. It was further suggested, and the question voted upon, that the officers and committees shall remain on duty and continue to hold office until their successors are elected. This will cover a period of about sixteen months.

The Committee on Registration report 289 names registered at this meeting.

A vote of thanks to the retiring President was given by the Society with hearty unanimity. The Secretary read the minutes of the meeting in its entirety, after which the Society adjourned to meet again on the third Tuesday in June, 1876.

Whatever of this sketch interests you sufficiently to print for the information and gratification of your many readers will, of course, repay me for the draft upon my time which this rehearsal has caused, though you select only ten lines.

I am, with sincere regards, your obedient servant,

GEO. BAYLES, M. D.

73 W. 46th Street, New York City.

RICHMOND ACADEMY OF MEDICINE.

February 4th.—Dr. R. T. Coleman made the report of the committee appointed to confer with the Committee of the Richmond Pharmaceutical Association relative to the suggestions of the latter Association. The committee recommended (1) that the letters *p. c.* (*præter consuetudinem*) be written by the physician on the left of, and on the same line with the name of any potent ingredient, when purposely prescribed in doses larger than those ordinarily used; (2) that members of both Societies shall use every proper means to stop the sale of such drugs as opium, chloral, &c., except upon competent medical authority, and that the Legislature be memorialized to make proper enactments to effect the object in view; (3) that since the drachm (ζ) and ounce ($\bar{\zeta}$) symbols are sometimes fatally confounded because of their strongly marked similarity when hastily or carelessly written, the Greek capital delta, Δ , (the first letter of the word $\delta\rho\alpha\chi\mu\alpha$) be hereafter used instead of the present sign; and (4), that the apothecary is not at liberty to reveal to the patient the components of a physician's prescription written in technical language.

Mr. J. Blair, President of the Richmond Phar. Assn., was invited to participate in the discussion. He said that in Germany the physician was required to affix a caution mark opposite the name of any powerful drug prescribed in unusual doses. The adoption of such a sign would relieve the apothecary of much embarrassment. Dr. M. L. James suggested that the letters be enclosed in brackets thus [*p. c.*]. On vote the first recommendation was adopted.

The second recommendation was also adopted. Drs. McCaw, Coleman and Parker were appointed committee to memorialize the Legislature.

Regarding the third recommendation, Mr. Blair advocated it as the most important part of the report. He thought that if these suggestions should be adopted by this Society and the Pharmaceutical Association, they would probably be accepted after a time by the National Medical and Pharmaceutical Associations, and thus they might be adopted generally throughout the United States. After some discussion, this recommendation was rejected by a majority vote. The fourth recommendation was concurred in.

The Report of the Committee on Health for December, 1874, was presented by Dr. Joynes. The year 1874 was a remarkably healthy one; but the mortality during December, 1874, though comparatively small, was a little greater than during December, 1873—the figures being 119 against 109. Decem-

ber, however, was *the only month in the year* which exhibited any increased mortality as compared with that of 1873. The total number of deaths during 1874 was 727 whites and 864 blacks=1591; during 1873, 977 whites and 1060 blacks=2037. The reduction in white mortality during 1874 was, therefore, 25.6 per cent.; in colored 18.5 per cent. In fact, 1874 was the *least fatal year of the last five*. The Committee has no means of extending the comparison further back.

On motion of Dr. James, thanks were voted the Committee on Health for the past year for the valuable services rendered by their regular and carefully prepared monthly reports.

February 18th.—**Remarkable Tolerance of Opium in a Child.**—Dr. Edwards reported the case of P. L., white, male, 6 years old, thought by his parents to have been previously healthy. While playing before dinner (Dec. 12) with a pet dog in the yard, he tripped and fell upon his hands and knees—the abdomen not coming in contact with the ground, nor was it struck by anything. He arose without difficulty and walked up stairs to his mother's chamber; complained of no pain or hurt except at a point near the navel. This pain, though exciting no apprehension on the part of the family, caused the mother to send for Dr. E., who, on arriving about an hour after the injury, was struck with the symptoms of marked collapse, though the pain at a point about midway between the umbilicus and the right anterior iliac spines seemed intolerable. This pain, as severe as it was, was intensified by slight pressure, and greatly increased by deep, firm pressure. The patient suffered less when lying on his back and with his thighs and legs flexed; any attempt to "straighten out" his lower extremities increased the abdominal pain—even the weight of the bed-clothing could not be borne. On examining the uncovered abdomen, it was seen to be notably distended, though there was no mark indicating external injury. While the patient was on his back, percussion showed tympanites over the anterior portion of the abdomen, with dullness, even flatness, on the sides, while palpation from side to side indicated the presence of fluid. Pulse quick, but not full. Some sickness of the stomach, though no vomiting—in short, all the usual signs of peritonitis were present. No signs or symptoms of injury or displacement of the kidneys, liver, spleen or other organ. No blood, either per rectum or mouth. Dr. E. thought the peritonitis the result of muscular strain, produced by trying to resist the fall on the ground, and that it was probable the effort caused rupture of some minute blood vessel, which opened into the peritoneal cavity. Hence, he thought the fluid accumulation in the abdomen was

blood. Opiates were at once commenced with, and during the first 24 hours *about* ʒiiss of laudanum was given. But during the afternoon of the second day, the doses used failing to give relief, they were increased first to 15 drops every half hour, then to 20 or 25. Even these large and rapidly repeated doses afforded only comparative relief, which was of short duration, and rarely produced sleep of sufficient length to interrupt the regular administration of the medicine. The largest one dose given was about 35 drops, which secured nearly two hours sleep. In addition to this, the use of hop poultices, sprinkled with laudanum, were several times attempted, and with some relief, but their weight annoyed the little sufferer to such a degree that they had to be removed. The inhalation of the vapor of a few drops of chloroform was also two or three times cautiously attempted, but it nauseated the stomach, and hence was dispensed with. The respirations, even during the sleep following the largest dose, were 15 or 15½ per minute, though the pulse was not examined, since it was feared that the slightest touch would awaken the already restless sleeper. In all, ʒvss of laudanum [of the usual strength, as tested on a patient since the meeting of the Academy] were taken by the patient during the second 24 or 25 hours. During the third 24 hours, scarcely ʒij [of another sample, but of no greater strength] were required; and ʒi during each of the succeeding days was used, when it was no longer necessary. In a few days more convalescence seemed established, and visits were discontinued.

On Jan. 19, Dr. E. was recalled. Was informed that P. had never fully recovered so as to be able to go out of doors to play. On careful examination, the diagnosis of extensive mesenteric disease was plain. No agent seemed to do any good in restoring the power of assimilation of food. Cod liver oil internally and externally was mostly relied on. Death Feb. 8th; symptoms immediately preceding (2 or 3 hours) were those of perforation of the intestine. Bowels somewhat loose for 3 or 4 days preceding. The symptoms of perforation occurred on awaking from an apparently comfortable sleep, after eating somewhat more than usual. Enlarged glands were felt through the abdominal walls, in the axillæ and about the neck. No autopsy.

Dr. J. N. Upshur reported a case of *acute rheumatism, in which seven large joints were simultaneously involved.*

Vicarious Diarrhœa.—Dr. Parker reported the case of a woman, aged 45 years, who has had diarrhœa for past four months. During this time she has not menstruated, though at each return of the period the diarrhœa is increased. Dieting has no effect; neither have astringents, opium, bismuth, &c.

Dr. Coleman had a similar case in a woman about 25 years old, previously regular; menses suspended for three months. Mustard plasters to the breasts and abdomen three or four days before the period, with suppository of opium, gr. ij, and ext. belladon. gr. ss, nightly, brought on menstruation, when the diarrhœa ceased.

Dr. L. S. Joynes reported a case of **Suppuration within the Antrum**—the result of catarrh. He was surprised at finding so little in the ordinary text books on the subject, though the literature on abscess of the antrum is abundant. He had used all the usual remedies, with nothing more than amelioration. No one present had ever met with a case similar to the one he described.

Galactagogue.—Dr. James has recently used teaspoonful doses of the fluid extract of the leaves of the castor oil plant very satisfactorily in five cases. Though porter and nutritious diet were continued, the quantity of milk was decreased when the extract was suspended, and increased when the extract was resumed.

Dr. Coleman had used castor oil locally to relieve "congestion of milk," but had never observed that the secretion was increased in quantity.

Eczema.—Dr. Parker reported a case of eczema in a child 3 years old, who had been raised on milk and water diet up to that age. Diet changed and child improved.

THE FLORIDA STATE MEDICAL SOCIETY.

This Society convened in Jacksonville Wednesday, February 10th, 1875, and after a harmonious session of two days, devoted chiefly to the framing of a Constitution and By-Laws, it adjourned to meet January, 1876, at Tallahassee.

Dr. Baldwin delivered an address on *Climatology*, with special reference to Florida. Dr. John P. Wall, of Tampa, also read a paper. Dr. E. P. Wellford, of Jacksonville, was elected Secretary.

THE KENTUCKY STATE MEDICAL SOCIETY

Will hold its 20th annual session at Henderson April 6, 1875. The Committee of Arrangements will spare no pains to make it a pleasant and profitable session. We return thanks for an invitation to be present.

Analyses, Selections, &c.

Radical Cure for Hernia.—Greensville Dowell, M. D., Galveston, thus describes his plan for the radical cure of hernia: The only instruments used are a double, spear-pointed, semi-circular needle, with an eye in each point, silver wire, a piece of cork, soft wood, or roll of adhesive plaster.

The parts being well shaven, three lines are then drawn with a brush and tincture of iodine, parallel to the direction of the hernial orifice, the centre line being immediately over the internal orifice and passing down to the external orifice, if the hernia be oblique inguinal; in other varieties, immediately over the greatest enlargement of the tumor. The needle is then taken hold of by the left hand at its unthreaded end; then the right hand, with the thumb and fore finger, pulls up the skin and superficial fascia as high as it can be done to the right of the middle line, letting the middle line be just below the point of the thumb. The threaded end is then pushed through the fold held below the point of the thumb and index finger. The fold is then let loose, and the threaded end taken by its point with the thumb and fingers of the right hand; it is then pulled on until the unthreaded end comes just under the outside line of right side of the operator, and left side of patient. The index finger of the left hand is made to invaginate the integuments as far as possible, and the finger pushed to the right under the left tendon of patient, feeling well the wall. The right hand then raises the needle so as to have its point directly over the point of the finger and a little to the outside of it. The needle is then pushed directly down through the tendon into the peritoneal cavity; at this stage, the point of the index finger of the left hand is carried to the right side of the patient, and held under the tendons; the needle is then moved about to see if it is loose, and turned in its curve so as to carry the curved portion of its point under the invaginated integuments, &c., to about one-quarter of an inch of the right tendon; the end is then brought out on the outside line of the patient's right side; this is done by pressing down on the threaded end held by the surgeon's right hand. The index finger of the left hand is then taken out, and the threaded end let go, and the unthreaded end is taken hold of by the right thumb and index finger of the right hand. It is now gently pulled on until the threaded end comes above the tendon. The point threaded is then reversed, and keeping well down on the tendon, is finally pushed out at the first puncture and pulled entirely out, leaving the two ends of

the ligature close together in the same puncture. We have thus put a ligature entirely around the two sides of the rupture, with a sufficient portion of the tendon and muscles to give the thread sufficient surface to act on; and now, by pulling on the two ends, the rupture is closed, internally, by the replacing of its natural support, and then the ends are tied around a piece of cork or soft wood. If one ligature does not close the opening, so that you cannot push the point of your finger under the wire, another wire is put in in the same way. Before tying the first, you must put in enough to completely close the rupture, and they should not be more than a quarter or half an inch apart.

The operation can be performed from either side, but it is best in inguinal hernia, to start the needle from the side opposite to the ilio-pubic ligament. This enables you to push down the needle by the side of the ligament, when, if you started on the side in the second position of the needle, you may go under the ligament.

This method is simple and easy to perform, and is applicable to all external herniæ, direct, scrotal, intestinal, frænicular, inguinal, crural, femoral, umbilical, ventral, epigastric, hypochondriac, lumbar, labial, perineal, and hernia in tunica propria cordæ testis and tunica propria cordæ rotundæ (in canal of Nash). The process is the same, and made with the same needle and silver wire. Of course, it is not applicable to internal hernia, as diaphragmatic, obturatic, ischiatic, entrocyctic, invaginal, vaginal and rectal, as they cannot be reached without resorting to the *direct method*, which ought to be done in all cases of strangulated hernia, when this needle will much facilitate a closure of the incision.

The wires are to be left in from four to seven days, according to the inflammation of the parts. Lotion of sugar of lead and morphine are to be applied externally, according to circumstances.—*Trans. Texas Med. Soc.*, 1874.

Four at a Birth.—*The Baltimorean* (Feb. 20th) reports the case of Mrs. John R. Hahn, 119 Low street, Baltimore, who gave birth February 16th, 1875, to four female babies, all of them "fine, fat, healthy, handsome children. At last accounts, the mother, though of course enfeebled, was getting along finely, and the children thriving." Drs. Dausch and Mansfield were the attending physicians. Mrs. H. is a small, delicate woman, about 30 years old, born of Irish parents in Baltimore. Her husband is a German by birth, but moved to this country when a year old. Physicians from Philadelphia, Harrisburg, Washington, Alexandria, &c., have visited Baltimore to see this remarkable mother and her remarkable progeny.

Book Notices, &c.

Report of 105 Cases of Operation for Cataract. (Reprint.) By
B. JOY JEFFRIES, A. M., M. D., Boston.

This report is interesting and instructive in many respects. The analyses of so great a number of cases affords the general profession an excellent idea of the success of cataract operations, the time required for them, and the various accidents, immediate and remote, attendant on them. Ignorance on these points has often given rise to expression of opinion on the part of physicians, as well as of the friends of the patient, calculated to do great injustice to the operator. The introductory remarks on this subject must commend themselves to all who read this report, and, we trust, will yield good results by increasing the satisfactory relations which ought to exist between patient and surgeon.

F. D. C.

Near-Sight Treated by Atropia, with Tables. (Reprint.) By
HASKET DERBY, M. D., Surgeon to the Massachusetts
Charitable Eye and Ear Infirmary, Boston.

The anomalies of the refraction and accommodation of the eye are daily assuming more importance, and are more and more engaging the attention of the ablest and most scientific ophthalmologists, both in this country and Europe. We have read Dr. Derby's pamphlet with much pleasure. His paper was read before the American Ophthalmological Society, which met in Newport last summer. While the Doctor admits that the subject of atropine treatment of acquired and progressive myopia needs further investigation, his experiments are interesting and valuable, and go far in demonstrating that the paralysis of the accommodation by the application of atropia, persisted in for some time, offers a reasonable prospect of preventing the progress of myopia. We hope the Doctor will give the profession the benefit of further experiments.

B. B.

[Our space will not allow of other book notices.]

Editorial.

OUR FIRST VOLUME.

With the present number we close the first volume of the *Medical Monthly*. We entered upon the experiment of establishing a Medical Journal with some degree of hesitancy, and trepida-

tion; we close the first year with a feeling of pride and exultation. Our list of subscribers has increased with each additional issue. Our contributors have kept us well supplied with valuable original articles, and we now present a volume of 768 pages, with a complete index, the whole book containing, what we do not hesitate to say, forms a valuable contribution to medical science and literature.

Our editorial work has often taxed us, mind and body, to the utmost point of endurance, amid a multiplicity of duties and engagements; and yet we have performed it *con amore*; with what ability, we must leave our readers to decide. We at least felicitate ourselves upon the favorable notices received from the press, and the flattering testimonials of approval which have come to us in our correspondence. Stimulated by these, and encouraged by the healthy growth of our subscription list, we shall be prepared to enter a new volume with stronger confidence than aminated us when we commenced our work a year ago. Our enterprise is no longer to be regarded in the light of a doubtful experiment. It is an established fact. But, it is due to our contributors to say that we are deeply indebted to *them* for the high position the *Medical Monthly* has taken among the better class of medical journals in the land. In reviewing our pages, we venture to affirm, that no candid and well-informed reader will hesitate, for a moment, to award the highest commendation of the original papers which have graced our present volume. The *names* of many of the writers would be an honor to any journal, and a passport to its introduction into any circle of physicians. We hereby return our sincere thanks to these contributors for the invaluable aid they have furnished us in conducting our adventure to a successful issue in a single year. And we bespeak the continuance of their support in our efforts to sustain the high reputation already acquired, and in our purpose to carry it to higher point of excellence during the second year.

One of the most painful duties we have to perform in our editorial work is the rejection, now and then, of papers sent us for publication. Themes are sometimes discussed that are hackneyed and threadbare. Cases are reported that are old and familiar. We are sometimes compelled, even when our personal

feelings would lead us to adopt a paper, to reject it on the above mentioned grounds. But no one should be offended or discouraged by the rejection of a paper. It has been the fortune of many who have achieved a very high rank as writers, to have some of their articles, offered to the press, rejected—not because they are wholly without merit; but because they are not fully abreast with the times. We are bound to exercise a judicious editorial discretion in accepting papers for our *Monthly*.

We sincerely hope it will be the pleasure of our subscribers to continue their patronage to our journal in its enlarged form as it will commence with the April number; and that they will do us the favor, as far as they may feel warranted in doing so, in aiding us to extend its circulation. We appeal to the *esprit de corps* of the profession, for a hearty support in our undertaking.

Obituary Record.

Dr. Wm. Owens.—At a meeting of the Lynchburg Medical Association, held Jan. 23d, 1875, Drs. Blackford, Walker, Morris, Spencer and Hooper were appointed a committee, who made the following report, which was unanimously adopted:

Whereas, It has pleased God to remove from this world our first President and friend, Dr. Wm. Owens; while bowing humbly to this dispensation of an All-wise Providence, we who shared his toils and witnessed his devotion to the exalted duties of his self-sacrificing profession, may be permitted to give some public expression to the feelings which so sad an event cannot fail to excite; therefore

Resolved, That in the death of Dr. Owens this Society has lost its oldest and most honored member, the community a highly esteemed citizen and skillful physician, who has worn the harness of a physician for over sixty years in their midst.

Resolved, That during his professional career he distinguished himself by a blameless life, an honorable character, genial sympathies, reverence for truth, and respect for the rights of others; and in his jealous watchfulness over professional purity and honor, he left us an example worthy of imitation.

Resolved, That this Society tender to the family of the deceased its deep sympathy and sincere condolence in their bereavement, and the Secretary furnish the family a copy of these resolutions, and also to our city papers and the *Virginia Medical Monthly* for publication.

Resolved, That this Society attend in a body the funeral of the deceased.

R. S. PAYNE, M. D., President.

Dr. John G. Pepper died suddenly February 8th, 1875. The Abingdon [Va.] Academy of Medicine, in session February 9, adopted the following on presentation by the committee—Drs. R. J. Preston, Wm. F. Barr and Wm. White:

Whereas, We have just received the sad intelligence of the death of one of our Fellows, Dr. John G. Pepper, of Bristol, Tenn., and being desirous of paying the last just tribute to his memory and his worth; therefore

Resolved, That while we bow in humble submission to the will of the Great Physician and Divine Master, yet we deeply deplore this sad loss in the death of our brother, not only to the profession of an honored and worthy member, to society of a good and valued citizen, but, more than all, to his family and friends of one near and dear, whose vacant place in their circle can never again be filled.

Resolved, That while we tender to the family of the deceased our heartfelt sympathy in this their sore bereavement, yet we feel in such affliction that our art is powerless, and that we can only direct them to "the balm in Gilead, and to the Physician there."

Resolved, That a copy of these resolutions be forwarded to the family of the deceased, and to the *Virginia Medical Monthly*, *Southern Medical Record*, *Abingdon Virginian*, *Bristol News and Courier*, and *Marion Patriot and Herald*.

H. M. GRANT, President *pro tem*.

R. J. Preston, *Rec. Sec.*

Dr. Joshua Riley died of paralysis of the heart at his residence in Georgetown, D. C., February 11th, 1875, in his 76th year. He was a regular practitioner of medicine for 50 years. From 1844 to 1859 he occupied the position of Professor of *Materia Medica* in the then Medical Department of the Columbian College. He was one of the founders and directors of the Washington Infirmary; he was also one of the original incorporators of the Medical Society of the District of Columbia. Dr. Riley was a man of unblemished reputation, of winning manner, and of marked ability. He occupied at different times responsible offices of a medical, civil and public character, and in every particular he was beyond reproach. He dies lamented by his professional brethren, and by the entire community of which he was a most useful member.

Dr. Robert Henry Cabell died in Baltimore February 20th,

aged 76 years. He was many years an eminent physician in Richmond, and belonged to one of the oldest families of Virginia. He was a brother-in-law of Gen. Winfield Scott, and a near relative of ex-Gov. Cabell and Hon. Wm. C. Rives, formerly U. S. minister to France. He had resided in Baltimore about 18 months.—*Balt. Sun*, Feb. 22d.

Miscellany, &c.

Dr. Wm. H. Taylor has been elected Professor of Chemistry in the Medical College of Virginia. No better selection could have been made. He has performed the duties of the chair ever since the death of Dr. R. S. J. Peebles.

Dr. J. L. Cook, of Henderson, Ky., recently delivered an address by invitation before the city High School. Subject: The Mind.—*Henderson Reporter*.

[It is a good idea to have such occasional addresses delivered before the High School classes. Much might be taught by them that can scarcely be touched in the regular course.]

- **A Case of Hemorrhagic Malarial Fever in a Child 25 Months Old**, white, female, is reported in the Mortuary Report of Selma, Ala., for 1874—Dr. J. P. Furniss, Health Officer. In the certificate of death, the attending physician remarks that he had never before seen the disease in one so young. There were only two other deaths—both whites—from the same cause in Selma.

Verbo del Perro, or Dog-plant, is the name of the Mexican plant of the order compositæ lately introduced in Paris. It is a powerful nervous stimulant and poison, producing effects similar to nux vomica.—*Phar. Gazette*, Feb. 14, 1875.

Messrs. G. P. Putnam's Sons, New York, are doing the profession a valuable service in presenting a *Series of American Clinical Lectures*, under the editorship of Dr. E. C. Sequin. We have received No. 1, of Volume I, *On Diseases of the Hip Joint*, by Prof. Sayre, which contains at length the views of this distinguished author. At the same time we fear Messrs. Putnam's Sons do themselves injustice in charging 40 cents for a pamphlet of 24 pages—that is, at a rate of nearly \$5 per annum for less than 300 unbound pages.

Dr. Robert L. Barrett, Louisa Co., Va., was recently thrown from his horse and suffered fracture of the leg.

Virginia Mortuary Statistics for January, 1875.

(Compiled from Reports of the several City Boards of Health.)

Cities.....		RICHMOND.				NORFOLK.				LYNCHEBURG.			
Health Officers.....		Dr. J. G. Cabell.				Dr. W. M. Wilson.				Dr. R. S. Payne.			
		White.		Colored.		White.		Colored.		White.		Colored.	
Population.....		33,452		27,213		12,000		8,000		6,500		6,500	
Sex.....		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Number of deaths.....		25	16	40	36	3	5	6	7	4	1	8	10
Number still born.....		5		11		1		1		3		7	
AGES. Ages unknown calculated.	Under 1 year.....	4		14		Color not given, 4				color not given, 6			
	“ 3 years.....	4		7		“ “ “ 2				“ “ “ 3			
	“ 10 “.....	3		10		“ “ “ 4				“ “ “ 1			
	“ 20 “.....	1		2		“ “ “ “				“ “ “ “			
	“ 30 “.....	5		8		“ “ “ “				“ “ “ “			
	“ 50 “.....	7		11		“ “ “ 1				“ “ “ 1			
	“ 70 “.....	10		13		“ “ “ 3				“ “ “ 4			
	“ 80 “.....	4		3		“ “ “ 1				“ “ “ 2			
	“ 100 “.....	3		2		“ “ “ 3				“ “ “ 2			
	Over 100 “.....	...		1		“ “ “ “				“ “ “ “			
Most frequent Causes of Death.	Accidents, &c.....	3		4								2	
	Apoplexy.....	.....		2		1						.....
	Asthma.....	2		.....								.....
	Brain Congestion.....	1		2								.....
	“ Disease.....	1		1								1	
	Bronchitis.....	.....		.....						1		.....
	Cancer.....	.....		2								.....
	Consumption.....	8		14						1		1	
	Convulsions.....	.....		7								.....
	Croup, Pseudo-Membranous.....	1		.....				1				.....
	Diarrhœa, Dysentery, &c.....	1		1				1				.....
	Diphtheria.....	2		1		1		2				.....
	Dropsy.....	2		2				1				.....
	Epilepsy.....	.....		.....				1				.....
	Fever, Congestive.....	2		2								.....
	“ Remitt.....	.....		.....				1				.....
	“ Typhoid.....	1		2								1	
	Heart Diseases.....	1		3		2						1	
	Inanition, Old Age, &c.....	4		1		2		4				3	
	Lungs, Congest., Gangrene.....	1		1								1	
	Meningitis, Cereb. Spinal.....	1		.....								.....
	Metro-peritonitis.....	.....		.....		1						.....
	Paralysis, General.....	2		2								.....
Pneumonia.....	4		10				1		2		2		
Pyæmia.....	.....		.....				1				.....	
Rheumatism.....	.....		.....		1						.....	
Scrofula.....	.....		3								.....	
Spinal Disease.....	.....		1								.....	
Trismus Nascentium.....	.....		2								.....	
		Census taken in February, 1874.				No consumption.				Population is es- timated.			
						Population is es- timated.				Population is es- timated.			

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